

## THE SUMMER MEETING IN NEW BRUNSWICK

The fifty-first Summer Meeting of the Society was held at New Jersey College for Women of Rutgers University, New Brunswick, New Jersey, Saturday, Sunday, and Monday, September 15–17, 1945. The Institute of Mathematical Statistics met on September 16. Four hundred persons attended the meeting among whom were the following three hundred twenty members of the Society:

C. R. Adams, R. B. Adams, Leonidas Alaoglu, C. B. Allendoerfer, Warren Ambrose, R. L. Anderson, T. W. Anderson, R. F. Arens, H. A. Arnold, Silvio Aurora, E. G. Baker, Valentine Bargmann, Ruth Bari, R. C. F. Bartels, P. T. Bateman, I. L. Battin, E. G. Begle, T. J. Benac, Stefan Bergman, J. S. Biggerstaff, Archie Blake, Gertrude Blanch, R. P. Boas, Salomon Bochner, H. W. Bode, H. F. Bohnenblust, G. L. Bolton, T. A. Botts, A. H. Bowker, J. L. Brenner, G. W. Brown, R. H. Brown, T. H. Brown, J. A. Bullard, R. S. Burington, L. H. Bunyan, S. S. Cairns, B. H. Camp, Abraham Charnes, S. S. Chern, Alonzo Church, R. F. Clippinger, I. S. Cohen, L. W. Cohen, J. B. Coleman, Richard Courant, A. P. Cowgill, E. L. Crow, Nancy Cole, T. F. Cope, Byron Cosby, N. A. Court, M. J. Cox, H. B. Curry, J. H. Curtiss, J. F. Daly, Norman Davids, M. M. Day, L. S. Dederick, J. B. Díaz, C. L. Dolph, M. D. Donsker, Arnold Dresden, R. J. Duffin, Nelson Dunford, W. D. Duthie, Jacques Dutka, P. S. Dwyer, W. F. Eberlein, Samuel Eilenberg, Churchill Eisenhart, L. P. Eisenhart, Wade Ellis, Benjamin Epstein, Paul Erdős, Herbert Federer, F. G. Fender, F. A. Ficken, C. H. Fischer, M. M. Flood, G. E. Forsythe, R. M. Foster, F. H. Fowler, R. H. Fox, J. S. Frame, Evelyn Frank, M. R. Freundlich, Hans Fried, Bernard Friedman, K. O. Friedrichs, R. E. Fullerton, G. N. Garrison, Abe Gelbart, H. H. Germond, J. H. Giese, B. P. Gill, H. F. Gingerich, M. A. Girshick, Casper Goffman, Michael Goldberg, A. W. Goodman, R. O. Goodman, W. H. Gottschalk, H. S. Grant, J. W. Green, Bernard Greenspan, Leonard Greenstone, Lewis Greenwald, T. N. E. Greville, V. G. Grove, P. E. Guenther, E. J. Gumbel, Margaret Gurney, K. W. Halbert, D. W. Hall, Marshall Hall, P. R. Halmos, G. E. Hay, K. E. Hazard, C. M. Hebbert, G. A. Hedlund, A. E. Heins, M. H. Heins, Erik Hemmingsen, M. R. Hestenes, Edwin Hewitt, T. H. Hildebrandt, Einar Hille, Abraham Hillman, William Hodgkinson, T. R. Hollcroft, Harold Hotelling, S. E. Hotelling, A. S. Householder, E. M. Hull, Witold Hurewicz, H. D. Huskey, (L.) C. Hutchinson, Rufus Isaacs, Nathan Jacobson, Herbert Jehle, Fritz John, G. K. Kalisch, Aida Kalish, Wilfred Kaplan, Irving Kaplansky, William Karush, M. E. Kellar, J. L. Kelley, L. M. Kells, C. J. Kirchen, S. C. Kleene, J. R. Kline, E. R. Kolchin, H. L. Krall, Jack Laderman, Rafael Laguardia, H. G. Landau, J. A. Larrivee, J. P. LaSalle, Solomon Lefschetz, D. H. Lehmer, Joseph Lehner, A. M. M. Lehr, Max LeLeiko, Howard Levene, D. C. Lewis, J. V. Lewis, Charles Loewner, A. T. Lonseth, E. R. Lorch, A. N. Lowan, Janet McDonald, Brockway McMillan, E. J. McShane, L. A. MacColl, J. K. L. MacDonald, G. W. Mackey, Saunders MacLane, H. F. MacNeish, Ingo Maddaus, W. G. Madow, M. H. Martin, R. M. Martin, W. T. Martin, D. C. May, Walther Mayer, A. E. Meder, H. L. Meyer, E. B. Mode, Deane Montgomery, C. B. Morrey, Richard Morris, D. J. Morrow, Marston Morse, J. E. Morton, F. J. Murray, C. A. Nelson, O. E. Neugebauer, A. B. Newton, Ivan Niven, P. B. Norman, C. O. Oakley, L. R. Norwood, P. S. Olmstead, L. F. Ollmann, A. F. O'Neill, E. R. Ott, F. W. Owens, H. B. Owens, J. C. Oxtoby, J. S. Oxtoby, R. S. Pate, W. H. Pell,

W. F. Penney, R. S. Phillips, Everett Pitcher, Walter Pitts, M. H. Protter, Hans Rademacher, John Raleigh, L. L. Rauch, Maxwell Reade, Mina Rees, R. W. Rempfer, R. G. D. Richardson, C. E. Rickart, John Riordan, E. K. Ritter, H. E. Robbins, M. S. Robertson, P. C. Rosenbloom, J. B. Rosser, H. E. Salzer, Hans Samelson, Arthur Sard, F. E. Satterthwaite, L. J. Savage, S. A. Schaaf, A. T. Schafer, Robert Schatten, Henry Scheffé, I. J. Schoenberg, Pincus Schub, G. E. Schweigert, Lowell Schoenfeld, Abraham Schwartz, I. E. Segal, Abraham Seidenberg, M. E. Shanks, C. E. Shannon, Seymour Sherman, Max Shiffman, S. S. Shü, D. T. Sigley, M. M. Slotnick, M. F. Smiley, P. A. Smith, Ernst Snapper, Herbert Solomon, R. D. Specht, A. H. Sprague, E. R. Stabler, E. P. Starke, N. E. Steenrod, F. F. Stephan, W. J. Sternberg, J. J. Stoker, C. N. Stokes, A. H. Stone, E. G. Straus, L. M. Straus, M. M. Sullivan, R. L. Swain, J. L. Synge, Otto Szász, A. H. Taub, Alfred Tarski, R. M. Thrall, Leonard Tornheim, W. R. Transue, W. J. Trjitzinsky, C. A. Truesdell, A. W. Tucker, Bryant Tuckerman, J. W. Tukey, H. S. Vandiver, V. J. Varineau, Andrew Vazsonyi, Oswald Veblen, R. J. Walker, A. D. Wallace, Henry Wallman, R. M. Walter, J. B. Walton, J. A. Ward, W. R. Wasow, J. V. Wehausen, E. T. Welmers, Hermann Weyl, George Whaples, A. P. Wheeler, G. W. Whitehead, P. A. White, Hassler Whitney, G. T. Whyburn, D. V. Widder, Norbert Wiener, S. S. Wilks, Jacob Wolfowitz, W. D. Wray, H. A. Wood, Alexander Wundheiler, G. S. Young, J. W. T. Youngs, Daniel Zelinsky, J. A. Zilber, H. J. Zimmerberg, Leo Zippin, Antoni Zygmund.

On Saturday at 9:30 A.M. Professor S. S. Chern of the National Tsing Hua University and the Institute for Advanced Study gave an address entitled *Some new viewpoints in differential geometry in the large*. At 2:00 P.M. Professor Samuel Eilenberg of the University of Michigan gave an address entitled *Topological methods in abstract algebra*. Professor Marston Morse presided in the morning and Professor Saunders MacLane in the afternoon.

Vice President G. T. Whyburn presided at the Sunday afternoon symposium on *Recent developments in numerical methods*, which consisted of these addresses: *Interpolation, smoothing and curve fitting* by Professor I. J. Schoenberg of the University of Pennsylvania; *Laurent expansions of algebraic functions* by Professor H. A. Rademacher of the University of Pennsylvania; and *Numerical solutions of integral equations* by Professor A. T. Lonseth of Northwestern University.

There was no session scheduled for Sunday morning in order that members might attend the symposium of the Institute of Mathematical Statistics on *The theory and application of sequential analysis*.

At 9:30 A.M. Monday, Professor Witold Hurewicz of the University of North Carolina gave an address *On some aspects of ergodic theory*. Vice President Einar Hille presided.

Presiding officers for the sessions of short papers were: Analysis, Saturday morning, Professor Norbert Wiener; Algebra and Geometry, Saturday morning, Professor V. G. Grove; Applied Mathematics, Saturday afternoon, Professor J. L. Synge; Analysis, Saturday after-

noon, Lieutenant Marshall Hall; Analysis, Monday morning, Professor E. R. Lorch; and Topology, Monday morning, Professor S. S. Cairns.

There was a business meeting at 9:15 A.M. on Monday at which President T. H. Hildebrandt presided.

Headquarters for the meeting were in the Little Arcade on Jameson Campus. A photograph was taken at 1:15 P.M. Sunday.

On Saturday afternoon Dean Margaret T. Corwin of the New Jersey College for Women of Rutgers University received at her home the members attending the meeting.

The members of the Department of Music of the New Jersey College for Women gave an excellent musicale on Saturday evening.

At dinner Sunday evening Professor Saunders MacLane was toastmaster. Dean Corwin extended welcome on behalf of President R. C. Clothier of Rutgers University. President Hildebrandt spoke about the Canadian Mathematical Congress held in Montreal in June and on the immediate future needs of mathematics in America. Professor M. R. Hestenes of the University of Chicago presented a resolution of thanks for the cordial hospitality and excellent arrangements.

The Council met at 8:00 P.M. on September 16, 1945, in Agora.

The Secretary announced the election of the following twenty persons to ordinary membership in the Society:

Professor Alberto Barajas, Universidad Nacional de Mexico;  
 Dr. George Francis Carrier, Gordon McKay Laboratory, Harvard University;  
 Mr. Franco Croci, New York City;  
 Mr. Robert A. Deutsch, Kellogg Corporation, Knoxville, Tenn.;  
 Mr. Nicholas A. Draim, Captain, U.S.N.;  
 Mr. John Arthur Healey Duffie, Catholic University of America;  
 Reverend Edward Henry Gallagher, University of Cincinnati;  
 Professor Carlos Federico Graef, Universidad Nacional de Mexico;  
 Professor Ralph Craig Huffer, Beloit College;  
 Professor Zeke Lowe Loflin, Southwestern Louisiana Institute;  
 Mr. George William MacCheyne, Stromberg Carlson Company, Rochester, N. Y.;  
 Dr. Ethel C. Muggli, St. Benedict's College, St. Joseph, Minn.;  
 Miss Virginia Macky Noyes, Cambridge, Mass.;  
 Mr. Nicanor Parra, Brown University;  
 Mr. Joel Pitcairn, Corporal, U.S.A.;  
 Professor B. S. Madhava Rao, Central College, University of Mysore, Bangalore, India;  
 Mr. Carlos Federico Secada, Lieutenant Commander, Peruvian Navy;  
 Mr. Frank Morris Steadman, Banning, Calif.;  
 Mr. Charles Joseph Titus, Brown University;  
 Mr. Ronald B. Wiley, Owens-Corning Fiberglas Corporation, Newark, Ohio.

It was reported that the following had been elected as nominees on the Institutional Memberships of the institutions indicated:

University of Manitoba: Assistant Professor Joseph William Lawson;  
University of Oregon: Mr. Alfred Ellsworth Halteman.

Wheaton College, Norton, Massachusetts, was elected to institutional contributing membership.

The following appointments by President T. H. Hildebrandt were reported: as a Committee on Arrangements for the 1945 Summer Meeting at Rutgers University, Professors C. A. Nelson (Chairman), R. M. Foster, T. R. Hollcroft, A. E. Meder, and E. P. Starke; as a Committee on Sponsorship of Mathematical Reviews, Dean M. H. Ingraham (Chairman), Professors O. E. Neugebauer and M. H. Stone; as a Committee on Aid to Libraries Devastated by the War, Professors Arnold Dresden (Chairman), Garrett Birkhoff, H. E. Bray, Will Feller, and Gabor Szegő.

In order to aid the work of the Committee on Aid to Libraries Devastated by the War, members of the Society are requested to send to Professor Dresden information concerning the state of libraries in various countries which may come to them from various sources. The existence of this committee does not prevent any member of the Society from making a personal contribution to any library in which he may be particularly interested.

It was reported that Professor Hans Lewy had been invited to deliver an address at the November, 1945, meeting in Pasadena, California. Times and places of meetings during 1946 were set as follows: February 23, April 26–27, and October 26 in New York City; April 26–27 in Chicago; April 27 in the far west.

On recommendation of the Colloquium Editorial Committee, the Council voted to invite Professor Oscar Zariski to deliver a series of Colloquium Lectures in 1947. The Editorial Committee also reported that a volume, entitled *Foundations of algebraic geometry*, by Professor André Weil would be published under its auspices in the near future.

It was voted to invite Professor Subrahmanyan Chandrasekhar of the Yerkes Observatory, University of Chicago, to deliver the twentieth Josiah Willard Gibbs Lecture at the 1946 Annual Meeting.

President T. H. Hildebrandt was added to the Emergency Committee of the International Congress of Mathematicians, as an ex officio member, and the committee was empowered to elect its own chairman. (These changes were necessitated by the deaths of Professors G. D. Birkhoff and W. C. Graustein, former members of the Emergency Committee.)

Professors C. B. Morrey and C. V. Newsom were appointed representatives of the Society on the Council of the American Association for the Advancement of Science for the year 1946.

The Council accepted a report of the Committee on the Role of the Society in Mathematical Publication (Professor R. L. Wilder, Chairman), recommending that the Society continue its subsidy of the American Journal of Mathematics. Since 1927 the Journal has been a joint enterprise of The Johns Hopkins University and the American Mathematical Society.

The committee appointed to study the problem of a suitable memorial to the late Professor G. D. Birkhoff recommended the publication of the collected works of Professor Birkhoff and the dedication to him of an early volume of the Transactions. The President was authorized to appoint a committee to study the implementation of this committee report.

It was reported that, in the future, mathematics would have eight representatives in the Division of Physical Sciences of the National Research Council, six of these to be appointed by the American Mathematical Society, one by the Mathematical Association of America, and one by the Institute of Mathematical Statistics. (At present the Society has three representatives and the Association has one.)

A report on Universal Military Service in Peace Time was presented by a subcommittee of the War Policy Committee and approved by the Council.

The Council voted to discharge the War Policy Committee, appointed in December, 1942. The President and Secretary of the Society are to study the problem of establishing a policy committee to handle general problems affecting mathematicians in the postwar era.

Titles and cross references to the abstracts of papers read are given below. The papers were read as follows: papers 1-6 in the section for Analysis, Saturday morning; papers 7-12 in the section for Algebra and Geometry, Saturday morning; papers 13-17 in the section for Applied Mathematics, Saturday afternoon; papers 18-22 in the section for Analysis, Saturday afternoon; papers 23-29 in the section for Analysis, Monday morning; papers 30-35 in the section for Topology, Monday morning; and papers 36-131, whose abstract numbers are followed by the letter *t*, were read by title. Paper 3 was read by Professor Martin, paper 7 by Dr. Seidenberg, paper 8 by Dr. Cohen, paper 10 by Professor Tarski, paper 14 by Professor Wiener. Mr. De Baggis was introduced by Professor Karl Menger.

1. H. J. Zimmerberg: *A class of definite boundary value problems.* (Abstract 51-5-94.)

2. R. P. Boas: *Some complete sets of functions.* (Abstract 51-11-211.)

3. R. H. Cameron and W. T. Martin: *Fourier-Wiener transforms of analytic functionals.* (Abstract 51-7-111.)

4. Nelson Dunford: *Boolean algebras of projections*. (Abstract 51-11-214.)
5. W. J. Trjitzinsky: *Theory of functions of intervals and applications to functions of a complex variable*. (Abstract 51-9-164.)
6. Bernard Friedman: *Two theorems on simple functions*. (Abstract 51-11-215.)
7. I. S. Cohen and Abraham Seidenberg: *Prime ideals and integral dependence*. (Abstract 51-11-203.)
8. I. S. Cohen and Irving Kaplansky: *Rings with a finite number of prime elements*. (Abstract 51-11-202.)
9. Warren Ambrose: *Remark on measures on locally compact topological groups*. (Abstract 51-11-194.)
10. Bjarni Jónsson and Alfred Tarski: *On direct products of algebras*. (Abstract 51-9-149.)
11. N. A. Court: *On a skew quartic associated with a tetrahedron*. (Abstract 51-9-174.)
12. M. M. Day: *Polygons circumscribed about closed convex curves*. (Abstract 51-11-237.)
13. Herbert Jehle: *A new approach to stellar statistics*. (Abstract 51-9-170.)
14. Arturo Rosenbluth and Norbert Wiener: *Mathematics of fibrillation and flutter in the heart*. (Abstract 51-9-171.)
15. F. J. Murray: *Linear equation solvers*. (Abstract 51-11-231.)
16. Stefan Bergman: *The integration of equations of fluid dynamics in the three-dimensional case*. (Abstract 51-9-169.)
17. R. J. Duffin: *Nonlinear networks. I*. (Abstract 51-11-230.)
18. Leonard Greenstone: *Some properties of conformal mappings of multiply connected domains*. Preliminary report. (Abstract 51-11-216.)
19. Arnold Dresden: *An extension of the equation of Lagrange,  $y = a + xf(y)$* . Preliminary report. (Abstract 51-9-156.)
20. Hans Rademacher: *On a function related to Riemann's zetafunction*. (Abstract 51-11-220.)
21. C. E. Rickart: *Banach algebras with an adjoint operation*. (Abstract 51-11-224.)
22. P. C. Rosenbloom: *Convex bodies in Banach spaces*. (Abstract 51-11-228.)
23. J. B. Díaz: *On a class of partial differential equations of even order*. (Abstract 51-11-213.)
24. C. A. Truesdell: *On the functional equation  $\partial F(z, \alpha)/\partial z = F(z, \alpha + 1)$* . (Abstract 51-11-229.)
25. Otto Szász: *On the absolute convergence of trigonometric series*. (Abstract 51-7-125.)

26. M. S. Robertson: *Univalent power series with multiply monotonic sequences of coefficients.* (Abstract 51-11-227.)
27. Robert Schatten: *The cross-space of linear transformations.* (Abstract 51-9-162.)
28. Ivan Niven: *A remark on Gaussian integers.* (Abstract 51-11-205.)
29. Einar Hille: *On uniform ergodic theorems.* (Abstract 51-11-218.)
30. W. H. Gottschalk: *Topological characterizations of almost periodicity.* (Abstract 51-11-248.)
31. J. C. Oxtoby: *Invariant measures in groups which are not locally compact.* (Abstract 51-9-187.)
32. G. T. Whyburn: *On monotone retractability into simple arcs.* (Abstract 51-9-192.)
33. R. H. Fox: *Knots in 3-dimensional manifolds.* (Abstract 51-7-140.)
34. A. D. Wallace: *Dimensional types.* (Abstract 51-9-190.)
35. G. S. Young: *The introduction of local connectivity by change of topology.* (Abstract 51-9-193.)
36. R. P. Agnew: *Characterization of methods of summability effective for power series inside circles of convergence.* (Abstract 51-11-209-t.)
37. R. P. Agnew: *Tauberian theorems for Nörlund summability.* (Abstract 51-7-109-t.)
38. R. F. Arens: *The linear homogeneous continua of G. D. Birkhoff.* (Abstract 51-7-137-t.)
39. Reinhold Baer: *Null systems in projective space.* (Abstract 51-11-195-t.)
40. Reinhold Baer: *Representations of groups as quotient groups. I.* (Abstract 51-11-196-t.)
41. Reinhold Baer: *Representations of groups as quotient groups. II. Minimal central chains of a group.* (Abstract 51-11-197-t.)
42. Reinhold Baer: *Representations of groups as quotient groups. III. Invariants of classes of related representations.* (Abstract 51-11-198-t.)
43. Reinhold Baer: *Sampling from a changing population.* (Abstract 51-11-241-t.)
44. Reinhold Baer: *The homomorphism theorems for loops.* (Abstract 51-11-199-t.)
45. Joshua Barlaz: *On some triangular summability methods.* (Abstract 51-11-210-t.)
46. Stefan Bergman: *Pseudo harmonic vectors and their properties.* (Abstract 51-9-155-t.)

47. R. H. Bing: *Collections filling up a simple plane web*. (Abstract 51-9-185-t.)
48. R. H. Bing: *Concerning simple plane webs*. (Abstract 51-7-138-t.)
49. R. H. Bing: *Collections cutting the plane*. (Abstract 51-11-245-t.)
50. R. H. Bing: *Generalizations of two theorems of Janiszewski*. (Abstract 51-9-186-t.)
51. Garrett Birkhoff: *Universal algebra*. (Abstract 51-9-182-t.)
52. L. M. Blumenthal: *Characterization of  $\phi$ -spherical subsets and pseudo sets*. (Abstract 51-7-130-t.)
53. L. M. Blumenthal: *Metric study of elliptic spaces*. (Abstract 51-7-131-t.)
54. Salomon Bochner and Deane Montgomery: *Groups of differentiable and real or complex analytic transformations*. (Abstract 51-7-139-t.)
55. A. T. Brauer: *A problem of additive number theory and its application in electrical engineering*. (Abstract 51-9-145-t.)
56. Richard Brauer: *A note on systems of homogeneous algebraic equations*. (Abstract 51-11-200-t.)
57. Richard Brauer and H. F. Tuan: *On simple groups of finite order*. I. (Abstract 51-7-105-t.)
58. F. L. Brown: *A simplification of the postulates of tri-operational algebra*. (Abstract 51-9-146-t.)
59. E. T. Browne: *Concerning a certain ring of homographies*. (Abstract 51-7-106-t.)
60. R. H. Cameron: *Some examples of Fourier-Wiener transforms of analytic functionals*. (Abstract 51-7-110-t.)
61. S. S. Chern: *Characteristic classes of Hermitian manifolds*. I. (Abstract 51-7-132-t.)
62. S. S. Chern: *Characteristic classes of Hermitian manifolds*. II. (Abstract 51-7-133-t.)
63. A. H. Copeland and Paul Erdős: *Note on normal numbers*. (Abstract 51-9-147-t.)
64. M. M. Day: *Note on the billiard ball problem*. (Abstract 51-11-236-t.)
65. H. F. DeBaggis: *A reduction of the postulational basis of non-euclidean geometry*. (Abstract 51-7-134-t.)
66. John DeCicco: *Equilong maps of the  $\infty^3$  circles*. (Abstract 51-9-175-t.)
67. Nelson Dunford and Robert Schatten: *On the associate and conjugate space for the direct product of Banach spaces*. (Abstract 51-7-112-t.)

68. C. J. Everett: *Two representations for real numbers*. (Abstract 51-9-148-t.)
69. Evelyn Frank: *On the zeros of polynomials with complex coefficients*. (Abstract 51-9-157-t.)
70. W. H. Gottschalk: *Properties of minimal sets*. (Abstract 51-11-247-t.)
71. J. D. Hill: *Summability of sequences of 0's and 1's*. (Abstract 51-7-116-t.)
72. Einar Hille: *A note on semi-groups analytic in a sector*. (Abstract 51-11-217-t.)
73. Abraham Hillman: *A note on differential polynomials*. II. (Abstract 51-7-107-t.)
74. Abraham Hillman: *Complex zeros of the Bessel-Weber functions  $Y_n$* . (Abstract 51-7-117-t.)
75. W. H. Ingram: *A boundary value problem and its Stieltjes integral equations*. (Abstract 51-11-219-t.)
76. Bjarni Jónsson and Alfred Tarski: *A generalization of Wedderburn's theorem*. (Abstract 51-9-150-t.)
77. Mark Kac: *On the average of a certain Wiener functional*. (Abstract 51-11-243-t.)
78. Irving Kaplansky: *A contribution to von Neumann's theory of games*. (Abstract 51-5-77-t.)
79. Edward Kasner: *Neo-Pythagorean triangles*. (Abstract 51-9-176-t.)
80. Edward Kasner: *Null hexagons*. (Abstract 51-9-177-t.)
81. Edward Kasner and John DeCicco: *Multi-isothermal systems*. (Abstract 51-9-178-t.)
82. J. W. Lasley: *On the classification of collineations in the plane*. (Abstract 51-9-179-t.)
83. J. W. Lasley: *On the equations of certain osculants*. (Abstract 51-9-180-t.)
84. Jakob Levitski: *Chains of multipla and semi-primarity*. (Abstract 51-11-204-t.)
85. A. N. Milgram: *Cyclotomically saturated polynomials and tri-operational algebra*. (Abstract 51-9-151-t.)
86. Josephine M. Mitchell: *Some properties of solutions of partial differential equations given by their series development*. (Abstract 51-9-158-t.)
87. Deane Montgomery: *Measure preserving homeomorphisms*. (Abstract 51-11-250-t.)
88. Deane Montgomery: *Topological groups of differentiable transformations*. (Abstract 51-7-141-t.)

89. C. N. Moore: *Convergence factors in general analysis. II.* (Abstract 51-7-118-t.)
90. A. F. Moursund: *Non-summability of the conjugate series of the Fourier series.* (Abstract 51-9-159-t.)
91. M. E. Munroe: *A note on weak differentiability of Pettis integrals.* (Abstract 51-9-160-t.)
92. N. D. Nelson: *Recursive functions and intuitionistic number theory.* Preliminary report. (Abstract 51-11-240-t.)
93. J. M. H. Olmsted: *Transfinite rationals.* (Abstract 51-9-152-t.)
94. Isaac Opatowski: *Direct and reverse transitions in Markoff chains.* (Abstract 51-9-184-t.)
95. Gordon Pall: *Hermitian quadratic forms in a quasi-field.* (Abstract 51-9-153-t.)
96. W. V. Parker: *The characteristic roots of matrices.* (Abstract 51-11-206-t.)
97. H. P. Pettit: *On the generation of certain algebraic surfaces.* (Abstract 51-9-181-t.)
98. H. P. Pettit: *The tangents at certain multiple points on a curve  $C_{2mn}$ .* (Abstract 51-11-238-t.)
99. H. P. Pettit: *The tangents at certain ordinary points on a curve  $C_{2mn}$ .* (Abstract 51-11-239-t.)
100. V. C. Poor: *Complex functions possessing differentials.* (Abstract 51-7-120-t.)
101. Tibor Radó: *On continuous mappings of Peano spaces.* (Abstract 51-11-221-t.)
102. W. T. Reid: *Definitely self-adjoint differential systems.* (Abstract 51-11-222-t.)
103. W. T. Reid: *Integral criteria for solutions of linear differential equations.* (Abstract 51-11-223-t.)
104. Moses Richardson: *On weakly ordered systems.* Preliminary report. (Abstract 51-9-188-t.)
105. P. R. Rider: *A new use for tables of the incomplete beta function.* (Abstract 51-3-66-t.)
106. H. E. Robbins: *Cesàro convergence of certain random sequences.* (Abstract 51-11-225-t.)
107. M. S. Robertson: *The coefficients of univalent functions.* (Abstract 51-11-226-t.)
108. R. M. Robinson: *Finite sequences of classes.* (Abstract 51-9-183-t.)
109. Edward Rosenthal: *On the sums of two squares and the sum of cubes.* (Abstract 51-11-207-t.)
110. Raphael Salem and Antoni Zygmund: *Capacity of sets and Fourier series.* (Abstract 51-7-122-t.)

111. Raphael Salem and Antoni Zygmund: *Lacunary power series and Peano curves*. (Abstract 51-9-161-t.)
112. Raphael Salem and Antoni Zygmund: *The approximation by partial sums of Fourier series*. (Abstract 51-7-123-t.)
113. H. E. Salzer: *Formulas for direct and inverse interpolation of a complex function tabulated along equidistant circular arcs*. (Abstract 51-7-127-t.)
114. H. E. Salzer: *Note on coefficients for numerical integration with differences*. (Abstract 51-11-232-t.)
115. H. E. Salzer: *Table of coefficients for double quadrature without differences, for integrating second order differential equations*. (Abstract 51-7-128-t.)
116. H. E. Salzer: *Table of coefficients for repeated integration with differences*. (Abstract 51-9-172-t.)
117. Peter Scherk: *On differentiable arcs and curves*. V. Preliminary report. (Abstract 51-5-100-t.)
118. A. R. Schweitzer: *A theory of congruence in the foundations of geometry*. II. (Abstract 51-7-135-t.)
119. A. R. Schweitzer: *A theory of congruence in the foundations of geometry*. III. (Abstract 51-7-136-t.)
120. I. M. Sheffer: *Note on Appell polynomials*. (Abstract 51-7-124-t.)
121. C. F. Stephens: *Systems of linear difference equations containing a parameter*. (Abstract 51-9-163-t.)
122. W. J. Trjitzinsky: *Integral equations in problems of representation of functions of a complex variable*. (Abstract 51-7-126-t.)
123. S. M. Ulam and John von Neumann: *Random ergodic theorems*. (Abstract 51-9-165-t.)
124. C. W. Vickery: *Concerning the notion of measure in metric spaces*. (Abstract 51-9-166-t.)
125. H. S. Wall: *Analytic functions with positive real parts*. (Abstract 51-9-167-t.)
126. H. S. Wall: *Theorems on arbitrary J-fractions*. (Abstract 51-9-168-t.)
127. A. D. Wallace: *Another fixed point theorem*. (Abstract 51-9-189-t.)
128. A. D. Wallace: *Extension sets*. I. (Abstract 51-7-142-t.)
129. A. D. Wallace: *Extension sets*. II. (Abstract 51-7-143-t.)
130. A. D. Wallace: *Extension sets*. III. (Abstract 51-7-144-t.)
131. G. T. Whyburn: *Boundary alternation of monotone mappings*. (Abstract 51-9-191-t.)

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