

10. Hans Lewy: *Fractional potentials*. (Abstract 47-5-231-t.)
11. H. M. Schwartz: *Sequences of Darboux-Stieltjes integrals*. (Abstract 47-5-246-t.)
12. R. K. Wakerling: *On the rational loci of $\infty^1(\rho-1)$ -spaces in r -space*. (Abstract 47-5-267-t.)
13. Max Zorn: *Transcendental p -adic numbers related to roots of unity*. (Abstract 47-5-215-t.)

T. M. PUTNAM,
Associate Secretary

THE APRIL MEETING IN CHICAGO

The three hundred seventy-eighth meeting of the American Mathematical Society was held at the University of Chicago, Chicago, Illinois, on Friday and Saturday, April 11–12, 1941. The attendance was about two hundred thirty including the following one hundred eighty-seven members of the Society:

A. A. Albert, G. E. Albert, W. L. Ayres, Reinhold Baer, R. M. Ballard, R. H. Bardell, R. W. Barnard, I. A. Barnett, Walter Bartky, E. F. Beckenbach, J. H. Bell, D. L. Bernstein, S. F. Bibb, D. H. Blackwell, G. A. Bliss, Morris Bloom, Henry Blumberg, L. M. Blumenthal, H. R. Brahana, Richard Brauer, Leonard Bristow, F. L. Brooks, H. K. Brown, O. E. Brown, P. B. Burcham, R. S. Burington, Herbert Busemann, L. E. Bush, J. W. Calkin, E. J. Camp, H. H. Campaigne, A. D. Campbell, E. W. Chittenden, R. V. Churchill, C. E. Clark, M. D. Clement, L. W. Cohen, B. H. Colvin, A. H. Copeland, J. J. Corliss, L. L. Cronvich, E. L. Crow, D. R. Curtiss, J. H. Curtiss, W. M. Davis, M. M. Day, J. J. DeCicco, L. L. Dines, J. M. Dobbie, D. M. Dribin, R. J. Duffin, W. D. Duthie, J. J. Eachus, J. M. Earl, Samuel Eilenberg, Benjamin Epstein, H. P. Evans, H. S. Everett, L. R. Ford, R. H. Fox, Bernard Friedman, Morris Friedman, H. L. Garabedian, E. R. Garbe, B. H. Gere, H. A. Giddings, J. S. Gold, H. H. Goldstine, Cornelius Gouwens, L. M. Graves, L. W. Griffiths, V. G. Grove, G. J. Haltiner, R. W. Hamming, G. E. Hay, O. C. Hazlett, A. E. Heins, E. D. Hellinger, M. R. Hestenes, J. F. Heyda, J. J. L. Hinrichsen, D. L. Holl, A. S. Householder, D. H. Hyers, M. H. Ingraham, Dunham Jackson, S. B. Jackson, R. N. Johanson, Wilfred Kaplan, William Karush, I. F. Keeler, J. L. Kelley, Lois Kiefer, H. S. Kieval, S. C. Kleene, W. C. Krathwohl, A. C. Ladner, E. P. Lane, R. E. Langer, W. G. Leavitt, R. A. Leibler, C. B. Lindquist, A. T. Lonseth, A. W. McGaughey, Saunders MacLane, Ralph Mansfield, Morris Marden, R. H. Marquis, C. W. Mendel, Herman Meyer, H. L. Meyer, E. W. Miller, R. A. Miller, W. E. Milne, W. L. Mitchell, Virginia Modesitt, C. W. Moran, Vladimir Morkovin, Max Morris, E. J. Moulton, J. P. Nash, A. L. Nelson, K. L. Nielsen, I. M. Niven, E. A. Nordhaus, E. N. Oberg, J. W. Odle, Rufus Oldenburger, E. W. Paxson, J. F. Paydon, E. R. Peck, G. H. Peebles, Sam Perlis, J. E. Powell, Tibor Radó, E. D. Rainville, W. C. Randels, R. B. Rasmusen, Maxwell Reade, W. T. Reid, C. E. Rickart, R. F. Rinehart, P. G. Robinson, Arthur Rosenthal, M. A. Sadowsky, R. G. Sanger, Max Sasuly, O. F. G. Schilling,

E. R. Schneckenburger, K. C. Schraut, G. E. Schweigert, W. T. Scott, M. E. Shanks, C. G. Shover, H. A. Simmons, A. H. Smith, F. C. Smith, W. S. Snyder, E. S. Sokolnikoff, I. S. Sokolnikoff, N. E. Steenrod, R. C. Stephens, B. M. Stewart, C. F. Strobel, Otto Szász, H. P. Thielman, J. M. Thompson, C. W. Topp, L. W. Tordella, H. C. Trimble, P. L. Trump, S. M. Ulam, Henry Van Engen, G. B. Van Schaack, J. I. Vass, H. S. Wall, M. S. Webster, K. W. Wegner, M. E. Wescott, G. W. Whaples, G. W. Whitehead, L. R. Wilcox, L. A. Wolf, M. C. Wolf, F. E. Wood, M. A. Woodbury, J. W. T. Youngs.

The meeting opened on Friday morning with three sections, Analysis, Professor E. W. Chittenden presiding; Analysis and Applied Mathematics, Professor R. V. Churchill presiding; and Algebra, Professor A. A. Albert presiding. On Friday afternoon Professor M. R. Hestenes gave the Symposium Lecture under the title *The problem of Bolza in the calculus of variations*. At this lecture Professor G. A. Bliss presided. On Saturday morning there were two sections, Analysis, Professor E. F. Beckenbach presiding; and Geometry and Topology, Professor L. M. Blumenthal presiding.

All sessions met in Eckhart Hall and the adjoining Ryerson Laboratory.

Friday afternoon after the Symposium Lecture the ladies of the Department of Mathematics of the University of Chicago served tea in the Commons Room of Eckhart Hall.

The dinner on Friday evening at Burton Court was attended by one hundred sixty-eight mathematicians and guests. The toastmaster, Professor Tibor Radó, pointed out that the University of Chicago was soon to have another claim to fame in having the youngest looking Professor Emeritus in the world in the person of Professor G. A. Bliss, who retires from the faculty at the end of the coming summer quarter. He then called on two former students of Professor Bliss, Professors L. L. Dines and L. M. Graves, who related many interesting incidents in the teaching career of Professor Bliss. Professor Bliss then spoke of the earlier mathematicians at the University of Chicago and of his pleasure in being associated with them. Many former students of Professor Bliss, who could not be present, sent telegrams and letters of greetings which were presented to him at the dinner.

Titles and cross references to the abstracts of the papers read at this meeting follow below. Papers numbered 1 to 8 were read before the Analysis section Friday morning, papers 9 to 15 before the section for Analysis and Applied Mathematics, papers 16 to 26 before the Algebra section, papers 27 to 33 before the Analysis section on Saturday morning, and papers 34 to 41 before the section for Geometry

and Topology. Papers 42 to 58, whose abstract numbers are followed by the letter *t*, were read by title. Mr. W. R. Scott was introduced by Professor Tibor Radó, Dr. R. S. Pate by Professor H. R. Brahana, Mr. L. J. Savage by Professor S. B. Myers, and Miss Harlan C. Miller by Professor R. L. Moore. Paper 31 was read by Professor Wall, 32 by Dr. Scott, and 39 by Dr. Youngs.

1. D. H. Hyers: *On the stability of the linear functional equation.* (Abstract 47-3-134.)
2. C. E. Rickart: *Integration in a convex linear topological space.* (Abstract 47-5-241.)
3. W. C. Randels: *On Bessel's inequality in abstract spaces.* (Abstract 47-5-240.)
4. H. H. Goldstine: *The parametric problem of the calculus of variations in general analysis.* (Abstract 47-5-224.)
5. W. R. Scott: *A lemma on the Weierstrass E-function.* Preliminary report. (Abstract 47-5-247.)
6. E. F. Beckenbach: *On functions having subharmonic logarithms.* (Abstract 47-5-216.)
7. Tibor Radó: *On the semi-continuity of double integrals in the calculus of variations.* (Abstract 47-3-140.)
8. J. F. Heyda: *A uniqueness property of general monogenic functions.* (Abstract 47-5-226.)
9. A. S. Householder: *A theory of steady-state activity in nerve-fiber networks. II. The simple circuit.* (Abstract 47-5-255.)
10. G. E. Hay: *The finite displacement of thin rods.* (Abstract 47-5-253.)
11. I. S. Sokolnikoff: *Deflection of non-isotropic elastic plates.* Preliminary report. (Abstract 47-5-257.)
12. A. E. Heins: *On the transformation theory of the solution of partial differential equations.* Preliminary report. (Abstract 47-5-254.)
13. E. L. Crow: *The expansion problem associated with an ordinary differential equation of first order in which the coefficient is a quadratic polynomial in the parameter.* (Abstract 47-5-221.)
14. A. T. Lonseth: *Dirichlet's principle for certain nonlinear elliptic equations.* (Abstract 47-5-232.)
15. G. H. Peebles: *On the behavior of series of polynomials orthogonal with respect to a weight function of changing sign.* (Abstract 47-5-238.)
16. H. P. Thielman: *Groups of linear fractional transformations.* (Abstract 47-5-203.)
17. M. A. Woodbury: *On ordered groups.* (Abstract 47-5-209.)
18. L. R. Wilcox: *Extensions of semi-modular lattices.* (Abstract 47-5-208.)

19. I. M. Niven: *Sums of n th powers of quadratic integers.* (Abstract 47-5-193.)
20. Reinhold Baer: *A unified theory of projective spaces and finite abelian groups.* (Abstract 47-5-182.)
21. B. M. Stewart: *Left-associated matrices with elements in an algebraic domain.* (Abstract 47-5-202.)
22. L. W. Griffiths: *The minimum number of variables in universal functions of polygonal numbers.* (Abstract 47-5-212.)
23. R. S. Pate: *Rings with multiple-valued operations.* (Abstract 47-5-194.)
24. H. A. Simmons: *Classes of maximum numbers associated with symmetric equations in n reciprocals. IV.* (Abstract 47-5-199.)
25. J. H. Bell: *Topics related to the factorization of matrices.* (Abstract 47-3-115.)
26. Richard Brauer: *On the connection between the ordinary and the modular characters of groups of finite order.* (Abstract 47-5-183.)
27. Benjamin Epstein: *Asymptotic problems associated with a Laplace-Mellin integral equation.* Preliminary report. (Abstract 47-5-223.)
28. R. J. Duffin: *Möbius transforms and Fourier transforms.* (Abstract 47-5-222.)
29. Dunham Jackson: *Generalization of a theorem of Korovs.* (Abstract 47-5-227.)
30. Otto Szász: *On convergence and summability of trigonometric series.* (Abstract 47-5-251.)
31. W. T. Scott and H. S. Wall: *The transformation of series and sequences.* (Abstract 47-3-144.)
32. W. T. Scott and H. S. Wall: *Gronwall summability.* (Abstract 47-5-248.)
33. P. B. Burcham: *Some inclusion relations in the Hausdorff difference matrix.* (Abstract 47-5-219.)
34. V. G. Grove: *The transformation T of congruences.* (Abstract 47-5-264.)
35. J. J. DeCicco: *The differential geometry of the Laguerre group G_6 .* (Abstract 47-3-154.)
36. L. J. Savage: *Distance spaces.* (Abstract 47-5-266.)
37. M. E. Shanks: *The space of all metrics on a compact space.* (Abstract 47-5-284.)
38. Samuel Eilenberg: *Banach space methods in topology. I.* (Abstract 47-5-278.)
39. G. E. Albert and J. W. T. Youngs: *The structure of locally connected topological spaces.* (Abstract 47-5-277.)

40. G. E. Schweigert: *Border transformations*. II. (Abstract 47-5-283.)
41. G. W. Whitehead: *Homotopy properties of rotation groups*. (Abstract 47-5-289.)
42. Edward Kasner and J. J. DeCicco: *Infinite groups generated by equi-long involutions and symmetries*. (Abstract 47-3-160-t.)
43. J. J. DeCicco: *Linear element transformations which preserve dual-isothermal families*. (Abstract 47-3-153-t.)
44. P. C. Hammer: *On fitting linear functions when all variables are subject to error*. (Abstract 47-5-272-t.)
45. Fred Kiokemeister: *The parastrophic criterion for the factorization of primes*. (Abstract 47-5-187-t.)
46. R. E. Lane: *The first three rational operations*. (Abstract 47-5-229-t.)
47. C. D. Olds: *Expansion of an arbitrary function in terms of certain polynomials*. (Abstract 47-5-237-t.)
48. C. D. Olds: *On some arithmetical identities*. (Abstract 47-5-214-t.)
49. G. E. Albert: *On separation spaces*. Preliminary report. (Abstract 47-5-276-t.)
50. H. A. Simmons: *Use of matrices in solving linear Diophantine equations*. (Abstract 47-5-200-t.)
51. Henry Scheffé: *Linear differential equations with two-term recurrence formulas*. (Abstract 47-5-244-t.)
52. Reinhold Baer: *Homogeneity of projective planes*. (Abstract 47-5-261-t.)
53. Lincoln La Paz: *Double integral variation problems with prescribed transversality coefficients*. (Abstract 47-5-230-t.)
54. Harlan C. Miller: *Concerning compact unicoherent continua*. (Abstract 47-5-281-t.)
55. N. E. Steenrod and A. W. Tucker: *Real n -quadrics as sphere-bundles*. (Abstract 47-5-285-t.)
56. D. M. Dribin: *A theorem on sets of ideals in solvable extensions of algebraic number fields*. (Abstract 47-5-186-t.)
57. Sam Perlis: *A characterization of the radical of an algebra*. (Abstract 47-5-195-t.)
58. W. T. Reid: *Green's lemma and related results*. (Abstract 47-7-313-t.)

W. L. AYRES,
Associate Secretary