## BULLETIN

## OF THE

## AMERICAN MATHEMATICAL SOCIETY

## THE OCTOBER MEETING IN NEW YORK

The three hundredth meeting of the American Mathematical Society was held at Columbia University, on Saturday, October 29,1932 , extending through the usual morning and afternoon sessions. The attendance included the following ninetynine members of the Society:

R. L. Anderson, R. G. Archibald, N. H. Ball, J. L. Barnes, A. C. Berry, Archie Blake, H. F. Bohnenblust, A. B. Brown, J. H. Bushey, S. S. Cairns, B. H. Camp, A. D. Campbell, W. R. Church, George Comenetz, H. M. Cox, E. L. Culbreth, Tobias Dantzig, J. L. Doob, Jesse Douglas, Arnold Dresden, Lillian Dundes, H. T. Engstrom, Fay Farnum, T. S. Fiske, W. B. Fite, Edward Fleisher, Tomlinson Fort, R. M. Foster, E. T. Frankel, E. U. Frey, Orrin Frink, C. A. Garabedian, B. P. Gill, O. E. Glenn, Eli Gourin, M. C. Gray, C. C. Grove, Laura Guggenbühl, C. M. Hebbert, Lulu Hofmann, I. O. Horsfall, Harold Hotelling, J. C. Hughes, S. A. Joffe, R. A. Johnson, B. W. Jones, Edward Kasner, L. S. Kennison, J. R. Kline, M. S. Knebelman, B. O. Koopman, A. W. Landers, M. K. Landers, Harry Langman, Solomon Lefschetz, L. A. MacColl, H. F. MacNeish, A. K. Mitchell, Morris Monsky, L. T. Moore, Richard Morris, G. W. Mullins, C. A. Nelson, Oystein Ore, F. W. Owens, H. R. Phalen, E. L. Post, Walter Prenowitz, G. B. Price, H. W. Reddick, R. G. D. Richardson, J. F. Ritt, H. P. Robertson, S. L. Robinson, K. E. Rosinger, H. G. Russell, C. E. Seely, Wladimir Seidel, I. M. Sheffer, Jacob Sherman, L. P. Siceloff, L. G. Simons, James Singer, C. E. Smith, G. Y. Sosnow, M.H. Stone, Paul Szabo, J. M. Thomas, E. W. Titt, C. C. Torrance, J. L. Vanderslice, Oswald Veblen, Leonard Vexler, R. J. Walker, H. S. White, W. A. Wilson, H. P. Wirth, H. M. Wright, Leo Zippin.

There was no meeting of the Council or of the Board of Trustees.

At the request of the Program Committee, Professor Jesse Douglas, of the Massachusetts Institute of Technology, delivered an address entitled The Problem of Plateau at the beginning of the afternoon session.

Titles and cross-references to the abstracts of the papers read at the regular sessions follow below. The morning sessions
were held in two sections; the papers numbered 1-11 were read before Section I, Professor Dresden presiding, those numbered 12-39 before Section II, Professor H. S. White presiding, and Professor Douglas's address and the papers numbered 40-43 before a general session in the afternoon, Professor Ritt presiding. Mr. Fialkow was introduced by Professor Kasner, Mr. Perlo by Professor Hotelling, Mr. Leighton by Professor Wall, and Dr. Saks by Professor Tamarkin. The papers whose abstract numbers are followed by the letter $t$ were read by title.

1. Note on cubic surfaces in the Galois fields of order $2^{n}$, by Professor A. D. Campbell. (Abstract No. 38-11-239.)
2. Transformations associated with the lines of a cubic, quadratic, or linear complex, by Dr. I. O. Horsfall. (Abstract No. 38-11-240.)
3. Translation families of heat curves, by Mr. George Comenetz. (Abstract No. 38-11-241.)
4. The geometry of degenerate heat families, by Mr. Aaron Fialkow. (Abstract No. 38-11-242.)
5. On teleparallelism in Finsler space (preliminary report), by Professor A. K. Mitchell. (Abstract No. 38-11-243.)
6. Three-dimensional manifolds and their Heegaard diagrams, by Dr. James Singer. (Abstract No. 38-7-188.)
7. Characterization of the closed 2-cell, by Dr. Leo Zippin (National Research Fellow). (Abstract No. 38-11-244.)
8. On unicoherency about a simple closed curve, by Professor W. A. Wilson. (Abstract No. 38-11-245.)
9. On the distribution of Student's ratio for samples from nonnormal populations, by Mr. Victor Perlo. (Abstract No. 38-11246.)
10. The converse of Spearman's two-factor theorem, by Professor B. H. Camp. (Abstract No. 38-11-247.)
11. Properties related to the Borel property and to the closure of derived sets, by Dr. Selby Robinson (National Research Fellow). (Abstract No. 38-11-256.)
12. Canonical expressions in Boolean algebra, by Mr. Archie Blake. (Abstract No. 38-11-248.)
13. A new theorem in combinatorial analysis with application to a classification of triadic relations, by Dr. K. E. Rosinger. (Abstract No. 38-11-249.)
14. On the progressions associated with a ternary quadratic form, by Mr. E. H. Hadlock. (Abstract No. 38-11-250-t.)
15. The generalized theorem of Stokes, by Dr. S. S. Cairns. (Abstract No. 38-11-251.)
16. On the existence and equality of repeated Riemann integrals, by Mr. J. G. Deutsch. (Abstract No. 38-11-252-t.)
17. Analytic theory of linear $q$-difference equations, by Dr. W. J. Trjitzinsky. (Abstract No. 38-11-253-t.)
18. On the convergence and overconvergence of sequences of polynomials of best simultaneous approximation to several functions analytic in distinct regions, by Dr. Helen G. Russell and Professor J. L. Walsh. (Abstract No. 38-7-173.)
19. On the distribution of values of bounded analytic functions, by Dr. Wladimir Seidel. (Abstract No. 38-11-254.)
20. On the distributions of the zeros of certain analytic functions, by Mr. L. A. MacColl. (Abstract No. 38-11-255.)
21. The triangulation of regular topological n-manifolds in $(n+r)$-space, by Dr. S. S. Cairns. (Abstract No. 38-11-257-t.)
22. Solution of the Zarankiewicz problem, by Dr. E. W. Miller. (Abstract No. 38-9-228-t.)
23. Cross sections of curves in 3 -space, by Dr. Hassler Whitney (National Research Fellow). (Abstract No. 38-11-258-t.)
24. The structure of the number of representations function in a binary quadratic form, by Dr. Gordon Pall. (Abstract No. 38-11-259-t.)
25. A characterization of fields in the calculus of variations, by Dr. S. B. Littauer and Professor Marston Morse. (Abstract No. 38-11-260-t.)
26. A class of representations of manifolds, by Dr. C. B. Morrey (National Research Fellow). (Abstract No. 38-11-261-t.)
27. Partial derivates, by Mr. J. G. Deutsch. (Abstract No. 38-11-262-t.)
28. Functions having the property ( $N$ ), by Mr. J. G. Deutsch. (Abstract No. 38-11-263-t.)
29. Continuity and summability for double Fourier series, by Dr. J. J. Gergen and Dr. S. B. Littauer. (Abstract No. 38-11-264-t.)
30. A set of independent postulates for Principia Mathematica, by Professor E. V. Huntington. (Abstract No. 38-11-265-t.)
31. On the convergence of continued fractions in which the elements are independent variables (preliminary report), by Mr. Walter Leighton. (Abstract No. 38-9-227-t.)
32. Integrals over surfaces in parametric form, by Dr. E. J. McShane (National Research Fellow). (Abstract No. 38-11-266-t.)
33. Parametrizations of saddle surfaces, with application to the problem of Plateau, by Dr. E. J. McShane (National Research Fellow). (Abstract No. 38-11-267-t.)
34. A theorem on Volterra integral equations of the second kind with singular kernels, by Dr. W. M. Rust. (Abstract No. 38-9-229-t.)
35. A property of indefinitely differentiable classes, by Dr. W. J. Trijitzinsky. (Abstract No. 38-11-268-t.)
36. On the approximation of analytic functions by rational functions of best approximation, by Professor J. L. Walsh. (Abstract No. 38-11-269-t.)
37. The total variation of $g(x+h)-g(x)$, by Professor Norbert Wiener and Dr. Rosalind C. Young. (Abstract No. 38-9-230-t.)
38. On topological characterizations of the two-dimensional simplex, by Professor W. A. Wilson. (Abstract No. 38-11-270-t.)
39. On some functionals, by Dr. Stanislas Saks. (Abstract No. 38-11-272-t.)
40. Families of heat surfaces, by Professor Edward Kasner. (Abstract No. 38-11-271.)
41. On the derivation of necessary conditions for the problem of Bolza, by Professor G. A. Bliss and Dr. I. J. Schoenberg. (Abstract No. 38-9-223-t.)
42. Jordan measure and Riemann integration, by Professor Orrin Frink. (Abstract No. 38-9-226.)
43. Analysis of a multivariate complex into principal components, by Professor Harold Hotelling. (Abstract No. 38-11-272.)
