

OFFICIAL COMMUNICATIONS

MEETINGS OF THE SOCIETY

NEW YORK CITY, October 31, 1942.

Abstracts must have been in the hands of Associate Secretary T. R. Hollcroft, 531 West 116th St., New York, N. Y., not later than October 2. Abstracts received by October 1 will appear in the November issue of this BULLETIN. By invitation of the Program Committee, the following addresses will be given: *Continuation of analytic functions in several variables* by Professor Salomon Bochner; in the symposium, *Mathematics in the field of optics*, to be held jointly Friday afternoon with the Optical Society of America, *The theory of the Schmidt telescope* by Professor J. L. Synge, *The mathematics of turbid media* by Dr. S. Q. Duntley, *A matrix treatment of optical systems, with polarizing, birefringent, and optically active elements* by Dr. R. C. Jones and *New methods of calculating illumination* by Professor Parry Moon.

NOTRE DAME, INDIANA, November 27–28, 1942.

Abstracts must be in the hands of Associate Secretary W. L. Ayres, Purdue University, Lafayette, Ind., not later than October 30. Abstracts received by October 1 will appear in the November issue of this BULLETIN. The annual Notre Dame Mathematical Conference will be held in connection with this meeting. The subject will be *Modern statistics* with four lectures: *Theory of confidence intervals* and *On a class of tests equivalent in the limit to the likelihood ratio tests* by Professor Jerzy Neyman, and *Outline of a general theory of statistical inference* and *Asymptotic properties of the likelihood ratio test* by Professor Abraham Wald.

LOS ANGELES, CALIFORNIA, November 28, 1942.

Abstracts must be in the hands of Acting Associate Secretary A. D. Michal, California Institute of Technology, Pasadena, Calif., not later than October 31. Abstracts received by October 1 will appear in the November issue of this BULLETIN. By invitation of the Program Committee, Professor Harry Bateman will deliver an address entitled *Some simple differential-difference equations and their related functions*. There will be a symposium on applied mathematics at which Professor H. U. Sverdrup will speak on *Physical oceanography* and Professor J. Holmboe on *Some aspects of the circulation of viscous fluids*.

ANNUAL MEETING: NEW YORK CITY, December 28–30, 1942.

Abstracts must be in the hands of Associate Secretary T. R. Hollcroft, 531 West 116th St., New York, N. Y., not later than November 23. Abstracts received by October 1 will appear in the November issue of this BULLETIN. The Josiah Willard Gibbs Lecture on *The ergodic theorem and statistical mechanics* will be given by Professor John von Neumann of the Institute for Advanced Study. By invitation of the Program Committee there will be an address by Professor Deane Montgomery entitled *Transformation groups and spheres*. At this time the retiring address of the Chairman of Section A of the American Association for the Advancement of Science will be given.

NEW YORK CITY, February 27, 1943.

NEW YORK CITY, April 23–24, 1943.

CHICAGO, ILLINOIS, April 23–24, 1943.

STANFORD UNIVERSITY, CALIFORNIA, April 24, 1943.

CORVALIS, OREGON, June 16–17, 1943.

J. R. KLINE, *Secretary of the Society.*

Articles for insertion in the BULLETIN should be typewritten, double spaced, and the author should keep a complete copy. Papers in algebra and theory of numbers should be sent to A. A. ALBERT, University of Chicago, Chicago, Ill.; in analysis to L. M. GRAVES, University of Chicago, Chicago, Ill.; in other fields to P. A. SMITH, Columbia University, New York, N. Y. Reviews should be sent to VIRGIL SNYDER, 214 University Ave., Ithaca, N. Y., and items for Notes to BULLETIN OF THE AMERICAN MATHEMATICAL SOCIETY, 531 West 116th St., New York, N. Y. All other communications to the editors should be addressed to the Managing Editor, TOMLINSON FORT, Lehigh University, Bethlehem, Pa.

The initial fees and annual dues of members of the Society (see this BULLETIN, May, 1930, p. 322; and September, 1942, Part 2, pp. 89–90) are payable to the Treasurer of the Society, B. P. GILL, Low Memorial Library, 531 West 116th St., New York, N. Y.

CONTENTS

Vol. 48, No. 10 OCTOBER, 1942 Whole No. 517

	Page
Some topics in the arithmetic of polynomials. By L. CARLITZ...	679
Differential equations with general boundary conditions. By W. M. WHYBURN.....	692
On the logarithmic means of rearranged partial sums of a Fourier series. By OTTO SZÁSZ.....	705
The basic analogue of Kummer's theorem. By J. A. DAUM...	711
Perron integrals. By R. L. JEFFERY.....	714
On Perron integration. By E. J. MCSHANE.....	718
On the least primitive root of a prime. By LOO-KENG HUA...	726
On the least solution of Pell's equation. By LOO-KENG HUA...	731
A note on the Diophantine problem of finding four biquadrates whose sum is a biquadrate. By J. O. PATTERSON.....	736
On the inversion of the q -series associated with Jacobian elliptic functions. By A. N. LOWAN, G. BLANCH and W. HORENSTEIN.	737
Table of the zeros of the Legendre polynomials of order 1-16 and the weight coefficients for Gauss' mechanical quadrature formula. By A. N. LOWAN, NORMAN DAVIDS and ARTHUR LEVENSON.....	739
Some remarks on relatively complete fields. By IRVING KAPLAN- SKY and O. F. G. SCHILLING.....	744
A differential geometry problem using tensor analysis. By A. H. SPRAGUE.....	747
On the nilpotency of the radical of a ring. By RICHARD BRAUER.	752
On an elementary analogue of the Riemann-Mangoldt formula. By AUREL WINTNER.....	759
A note on the lower semi-continuity of double integrals in the parametric form. By WILLIAM SCOTT.....	763
A non-involutorial space transformation associated with a $Q_{1,n}$ congruence. By M. L. VEST.....	767
Hausdorff means included between $(C, 0)$ and $(C, 1)$. By H. J. GREENBERG and H. S. WALL.....	774
Whirl-similitudes, euclidean kinematics, and non-euclidean geometry. By J. M. FELD.....	783