

## OFFICIAL COMMUNICATIONS

Meetings of the Society have been fixed at the following times and places:

On account of the fact that the Summer Meeting of the Society in 1932 will be held on the Pacific Coast, the meetings that were to have been held at Stanford University (April, 1932), at Seattle (June, 1932), and at Los Angeles (November, 1932) will be omitted.

LOS ANGELES, CALIFORNIA, SUMMER MEETING AND COLLOQUIUM, August 30-September 2, 1932.

Abstracts must be in the hands of Associate Secretary M. H. Ingraham, University of Wisconsin, Madison, Wis., not later than July 26. Abstracts received by July 7 will appear in the July issue, or an earlier issue, of this BULLETIN. Professor J. F. Ritt will deliver a series of colloquium lectures on *Differential equations from the algebraic standpoint*. By invitation of the program committee, Professor D. N. Lehmer will speak on *The continued fraction representing cubic and higher irrationalities*, and Professor Tibor Rado will speak on *Recent work in the problem of Plateau*.

NEW YORK CITY, October 29, 1932.

Abstracts must be in the hands of Associate Secretary Tomlinson Fort, 501 West 116th St., New York City, not later than October 8. In order to be printed in the BULLETIN in advance of the meeting, abstracts must be in the hands of the Associate Secretary not later than September 7. By invitation of the program committee, Professor Jesse Douglas will speak on *The problem of Plateau*.

ATLANTIC CITY, NEW JERSEY, ANNUAL MEETING, December 27-30, 1932.

Abstracts are due by November 30, 1932.

R. G. D. RICHARDSON, *Secretary of the Society*.

---

Articles for insertion in the BULLETIN should be addressed to E. R. HEDRICK, Editor of the BULLETIN, University of California at Los Angeles. Reviews should be sent to W. R. LONGLEY, Yale University, New Haven, Conn. Notes should be sent to H. W. KUHN, Ohio State University, Columbus, Ohio.

Subscriptions to the BULLETIN, orders for back numbers, and inquiries in regard to non-delivery of current numbers should be addressed to the American Mathematical Society, 450-459 Ahnaip St., Menasha, Wis., or 501 West 116th St., New York.

The initiation fees and the annual dues of members of the Society (see this BULLETIN, p. 322, May, 1930; and the List of Officers and Members, October, 1930, p. 58), are payable to the Treasurer of the Society, Professor G. W. Mullins, 501 West 116th St., New York City.

WHOLE NUMBER 391

CONTENTS

	PAGE
The Calculus of Variations and the Quantum Theory. By G. A. BLISS.....	201
Statistical Mechanics and the Second Law of Thermo- dynamics. By P. W. BRIDGMAN.....	225
Note on Diophantine Automorphisms. By LEONARD CARLITZ.....	246
On a Matrix Differential Operator. By A. K. MITCHELL	251
Solutions of Bounded Variation of the Fredholm-Stieltjes Integral Equation. By L. J. PARADISO.....	255
On Real Symmetric Determinants whose Principal Di- agonal Elements are Zero. By W. V. PARKER.....	259
On the Degree of Generality of a Class of Arithmetical Identities. By E. T. BELL.....	263
On the Moment Problem for a Finite Interval. By T. H. HILDEBRANDT.....	269
New Diophantine Automorphisms. By LEONARD CARLITZ	271
Note on the Diophantine Equation. $ax^2+by^2+cz^2+d\neq 0$ . By J. L. MORDELL.....	277
Note on an Application of Metric Geometry to Determi- nants. By L. M. BLUMENTHAL.....	283
On Polynomial Interpolation to Analytic Functions with Singularities. By J. L. WALSH.....	289
Analytic Study of Rational Quintic Surfaces having no Multiple Curves. By H. N. HUBBS.....	295
Adjoint Systems in the Problem of Mayer under General End-Conditions. By S. B. MYERS.....	303

---

For official Communications and Notices, see the inside of the back cover.

GEORGE BANTA PUBLISHING COMPANY, MENASHA, WISCONSIN