



Annual Meeting of the Rocky Mountain Section

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$$x^2 \frac{d^2\phi}{dx^2} - (n + m - 1)x \frac{d\phi}{dx} + nm\phi = rx^2\phi^{1+p}.$$

Such equations occur in the study of potential distributions in the presence of space charge. Particular cases are the equation of Thomas-Fermi,

$$\frac{d^2\phi}{dx^2} = \phi^{3/2}x^{-1/2},$$

and the equation of Langmuir,

$$\frac{d^2\phi}{dx^2} + \frac{1}{x} \frac{d\phi}{dx} = x^{-1}\phi^{-1/2}.$$

11. *Second solutions of certain differential equations associated with the theory of orthogonal polynomials*, by Professor L. W. Swanson, Coe College.

In solving a certain differential equation associated with orthogonal polynomials, a second solution had been omitted. The paper dealt with this second solution of the differential equation.

12. *Mathematics teaching procedure in the light of our experience with the army and navy schools*, by Professor O. C. Kreider, Iowa State College, Professor T. A. Bancroft, Iowa State College, and Professor W. M. Davis, Cornell College.

The speakers discussed the purpose, organization, difficulties, and successes of the army university centers and the navy educational programs overseas.

FRED ROBERTSON, *Secretary*

ANNUAL MEETING OF THE ROCKY MOUNTAIN SECTION

The twenty-ninth annual meeting of the Rocky Mountain Section of the Mathematical Association of America was held at the University of Colorado, Boulder, Colorado, on April 19 and 20, 1946.

The attendance was one hundred and twenty, including the following twenty-three members of the Association: H. H. Alden, C. F. Barr, William Betz, J. R. Britton, A. G. Clark, J. R. Everett, J. C. Fitterer, H. T. Guard, D. F. Gunder, Marian S. Gysland, Leota C. Hayward, I. L. Hebel, C. A. Hutchinson, A. J. Kempner, Claribel Kendall, A. J. Lewis, M. L. Madison, A. E. Mallory, W. K. Nelson, Greta Neubauer, O. H. Rechard, A. W. Recht, G. A. Whetstone.

The following papers were presented:

1. *Spherical trigonometry by projection on a plane*, by Professor I. L. Hebel, Colorado School of Mines.

2. *A compatibility relation in the flow of an incompressible ideal fluid*, by Dr. G. A. Whetstone, Amarillo College.

By applying the procedures developed by Riquier for the study of partial differential equations to the usual four equations

$$\frac{\partial u_i}{\partial t} + u_1 \frac{\partial u_i}{\partial x_1} + u_2 \frac{\partial u_i}{\partial x_2} + u_3 \frac{\partial u_i}{\partial x_3} = g_{xi} - \frac{1}{\rho} \frac{\partial P}{\partial x_i}, \quad (i = 1, 2, 3)$$

and

$$\frac{\partial u_1}{\partial x_1} + \frac{\partial u_2}{\partial x_2} + \frac{\partial u_3}{\partial x_3} = 0,$$

under the assumption $\rho = \text{constant}$, the author was lead to a necessary and sufficient compatibility condition.

3. *Teaching mathematics in the army*, by Professor H. T. Guard, Colorado State College.

This paper consisted of a description of the curriculum and the methods of instruction in the United States Military Academy.

4. *On the definition of functions of a complex variable*, by Professor A. J. Kempner, University of Colorado.

5. *Tables for the power function for tests of hypotheses relating to Poisson distributions*, by Professor A. G. Clark, Colorado A. and M. College.

The speaker discussed devices, including recursion formulas, which serve to reduce the labor of computation in constructing tables for the function specified in the title. Such tables are useful in the construction of efficient sampling experiments.

6. *The present educational situation and the crisis in mathematics*, by William Betz, Public Schools of Rochester, N. Y.

The speaker rehearsed the role of mathematics in the recent war effort. He referred to the mathematical deficiencies of millions of our young men, first pointed out by Admiral Nimitz, and later substantiated by selective service tests. It was suggested that there be a re-examination of the controversy between "education" and mathematics. On the basis of significant quotations it was shown that the educational scene is one of confusion bordering on chaos. Mathematics cannot be adjusted to the prevailing educational philosophies without giving up its real purposes. Fortunately, a healthy reaction against the destructive forces in our educational policies is now in the making. In conclusion, the speaker outlined the remedial steps that seem to be necessary if we wish to help improve the situation.

7. *The Laplace transformation*, by Professor J. R. Britton, University of Colorado.

Professor Britton gave an expository talk on the Laplace transformation and its applications to the solution of boundary value and initial value problems. Some of the simpler transforms were derived, and application was made to the problem of a two mass, two spring vibrating system. A mechanical model

served to demonstrate the types of behavior indicated by the previously obtained solution.

8. *The necessary reconstruction of mathematics in the light of war experiences*, by William Betz.

This was an invited address, delivered at a joint session with the National Council of Teachers of Mathematics and the Mathematics Section of the Colorado Education Association. The speaker holds the position of specialist in mathematics for the public schools of Rochester, N. Y. The address dealt with the reports of various committees which have issued pronouncements on the problem of mathematical instruction in the post-war period. He presented a check list of mathematical objectives, and suggested methods for attaining these objectives.

J. R. BRITTON, *Secretary*

ANNUAL MEETING OF THE LOUISIANA-MISSISSIPPI SECTION

The twenty-third annual meeting of the Louisiana-Mississippi Section of the Mathematical Association of America was held at Louisiana Polytechnic Institute, Ruston, Louisiana, on Friday and Saturday, March 22 and 23, 1946. Professor I. C. Nichols was elected temporary chairman and presided at the Friday afternoon and Saturday morning sessions. Professor P. K. Smith presided at the dinner meeting.

There were fifty in attendance, including the following twenty-one members of the association: W. G. Banks, N. A. Court, J. C. Currie, W. L. Duren, Jr., L. M. Garrison, F. C. Gentry, R. V. Guthrie, Jr., J. A. Hardin, W. L. Johnson, H. T. Karnes, C. G. Killen, A. C. Maddox, Dorothy McCoy, B. E. Mitchell, I. C. Nichols, W. V. Parker, P. K. Rees, F. A. Rickey, H. F. Schroeder, C. D. Smith, H. L. Smith, P. K. Smith, V. B. Temple, J. F. Thomson, B. A. Tucker, Marelena White.

At the business meeting the following officers were elected for the coming year: Chairman, W. V. Parker, Louisiana State University; Vice-Chairmen, W. L. Johnson, Mississippi Southern College, Z. L. Loflin, Southwestern Louisiana Institute; Secretary-Treasurer, F. C. Gentry, Louisiana Polytechnic Institute. Invitations to meet at Mississippi Southern College in 1947, and at Southwestern Louisiana Institute in 1948 were accepted.

The following papers were presented at the Friday afternoon program:

1. *Esthetic and moral implications of the ark of the covenant*, by Professor B. E. Mitchell, Millsaps College.

The purport of the speaker's remarks was that if the golden rectangle (length/width = 1.618) and the Platonic rectangle (length/width = 1.732) have esthetic value as polygonal forms, then the Mosaic rectangle (length/width = 1.667) has also, since it differs from the arithmetic, geometric, and harmonic means of the other two by 0.008, 0.007, and 0.006 of a part, respectively.