

## SEVENTEENTH ANNUAL LIST OF PAPERS.

READ BEFORE THE AMERICAN MATHEMATICAL SOCIETY AND  
SUBSEQUENTLY PUBLISHED, INCLUDING REFERENCES  
TO THE PLACES OF THEIR PUBLICATION.

- ALLEN, R. B. On Hypercomplex Number Systems Belonging to an Arbitrary Domain of Rationality. Read Feb. 25, 1905. *Transactions of the American Mathematical Society*, vol. 9, No. 2, pp. 203-218; Apr., 1908.
- BIRKHOFF, G. D. On the Asymptotic Character of the Solutions of Certain Linear Differential Equations Containing a Parameter. Read (Chicago) Mar. 30, 1907. *Transactions of the American Mathematical Society*, vol. 9, No. 2, pp. 219-231; Apr., 1908.
- BLISS, G. A. On the Inverse Problem of the Calculus of Variations. Read (Chicago) Apr. 22, 1905. *Annals of Mathematics*, ser. 2, vol. 9, No. 3, pp. 127-140; Apr., 1908.
- A New Form of the Simplest Problem of the Calculus of Variations. Read Apr. 27, 1907. *Transactions of the American Mathematical Society*, vol. 8, No. 3, pp. 405-414; July, 1907.
- A Method of Deriving Euler's Equation in the Calculus of Variations, Read Feb. 29, 1908. *American Mathematical Monthly*, vol. 15, No. 3, pp. 47-54; Mar., 1908.
- BOLZA, O. On Lagrange's Method of Multipliers in the Calculus of Variations. Read (Chicago) Dec. 28, 1906. *Mathematische Annalen*, vol. 64, No. 3, pp. 370-387; Sept., 1907.
- Existence Proof for a Field of Extremals Tangent to a Given Curve. Read (Chicago) Mar. 30, 1907. *Transactions of the American Mathematical Society*, vol. 8, No. 3, pp. 399-404; July, 1907.
- BROWN, E. W. On the Lunar Inequality due to the Motion of the Ecliptic and Figure of the Earth. Read Dec. 27, 1907. *Monthly Notices of the Royal Astronomical Society*, vol. 68, No. 6, pp. 450-455; Apr., 1908.
- BUCHANAN, H. E. Note on the Convergence of a Sequence of Functions of a Certain Type. Read (Chicago) Dec. 30, 1907. *Annals of Mathematics*, ser. 2, No. 3, vol. 9, pp. 123-126; Apr., 1908.
- CAJORI, F. Notes on the History of the Slide Rule. Read (Southwestern Section) Nov. 30, 1907. *American Mathematical Monthly*, vol. 15, No. 1, pp. 1-5; Jan., 1908.
- CARMICHAEL, R. D. Multiply Perfect Numbers of Four Different Primes. Read Oct. 27, 1906. *Annals of Mathematics*, ser. 2, vol. 8, No. 4, pp. 149-158; July, 1907.
- On Dividing an Angle into Parts Having the Ratios of Any Given Straight Lines. Read Feb. 23, 1907. *American Mathematical Monthly*, vol. 14, Nos. 6-7, pp. 115-117; June-July, 1907.
- On Constructing a Cube Having a Given Ratio to a Given Cube. Read (Chicago) Mar. 30, 1907. *American Mathematical Monthly*, vol. 14, No. 10, pp. 174-176; Oct., 1907.

- Note on Certain Inverse Problems in the Simplex Theory of Numbers. Read Sept. 5, 1907. *Bulletin of the American Mathematical Society*, vol. 14, No. 2, pp. 74-77; Nov., 1907.
- On Certain Transcendental Functions Defined by a Symbolic Equation. Read Sept. 5, 1907. *American Mathematical Monthly*, vol. 15, No. 4, pp. 78-83; Apr., 1908.
- On the Classification of Plane Algebraic Curves Possessing Fourfold Symmetry with Respect to a Point. Read Sept. 5, 1907. *Annals of Mathematics*, ser. 2, vol. 9, No. 2, pp. 53-56; Jan., 1908.
- On a Certain Class of Quartic Curves. Read Oct. 26, 1907. *American Mathematical Monthly*, vol. 15, No. 1, pp. 7-10; Jan., 1908.
- CHESSIN, A. S. On an Integral Appearing in Photometry. Read (Southwestern Section) Nov. 30, 1907. *Bulletin of the American Mathematical Society*, vol. 14, No. 5, pp. 212-215; Feb., 1908.
- COLPITTS, E. C. On Twisted Quintic Curves. Read Apr. 28, 1906. *American Journal of Mathematics*, vol. 29, pp. 309-344; Oct., 1907.
- COOLIDGE, J. L. The Equilong Transformations of Space. Read Oct. 26, 1907. *Transactions of the American Mathematical Society*, vol. 9, No. 2, pp. 178-182; Apr., 1908.
- CRATHORNE, A. R. Hilbert's Invariant Integral in the General Isoperimetric Problem. Read (Chicago) Dec. 30, 1907. Included in author's doctor dissertation: Das räumliche isoperimetrische Problem, Göttingen, 1907.
- CURTISS, D. R. The Vanishing of the Wronskian and the Problem of Linear Dependence. Read Dec. 28, 1905. *Mathematische Annalen*, vol. 65, No. 2, pp. 282-298; Feb., 1908.
- DARWIN, G. H. Further Note on Maclaurin's Spheroid. Read Oct. 26, 1907. *Transactions of the American Mathematical Society*, vol. 9, No. 1, pp. 34-38; Jan., 1908.
- DICKSON, L. E. Generational Relations for the Abstract Group Simply Isomorphic with the Linear Fractional Group in the  $GF[2^n]$ . Read (Chicago) Apr. 2, 1904. *Proceedings of the London Mathematical Society*, vol. 35, pp. 443-454; Aug., 1903.
- The Abstract Form of the Special Linear Homogeneous Group in an Arbitrary Field. Read (San Francisco) Sept. 30, 1905. *Quarterly Journal of Pure and Applied Mathematics*, vol. 38, No. 2, pp. 141-145; Jan., 1907.
- The Abstract Form of the Abelian Linear Groups. Read Sept. 3, 1906. *Quarterly Journal of Pure and Applied Mathematics*, vol. 38, No. 2, pp. 145-158; Jan., 1907.
- Representations of the General Symmetric Group as Linear Groups in Finite and Infinite Fields. Read (Chicago) Mar. 30, 1907. *Transactions of the American Mathematical Society*, vol. 9, No. 2, pp. 121-148; Apr., 1908.
- Modular Theory of Group Matrices. Read Sept. 6, 1907. *Transactions of the American Mathematical Society*, vol. 8, No. 3, pp. 389-398; July, 1907.
- On Quadratic Forms in a General Field. Read (San Francisco) Sept. 28, 1907. *Bulletin of the American Mathematical Society*, vol. 14, No. 3, pp. 108-115; Dec., 1907.
- On Triple Algebras and Ternary Cubic Forms. Read Oct. 26, 1907. *Bulletin of the American Mathematical Society*, vol. 14, No. 4, pp. 160-169; Jan., 1908.

- On Higher Congruences and Modular Invariants. Read Feb. 29, 1908. *Bulletin of the American Mathematical Society*, vol. 14, No. 7, pp. 313–318; Apr., 1908.
- Criteria for the Irreducibility of a Reciprocal Equation. Read (Chicago) Apr. 17, 1908. *Bulletin of the American Mathematical Society*, vol. 14, No. 9, pp. 426–430; June, 1908.
- The Galois Group of a Reciprocal Quartic Equation. Read (Chicago) Apr. 17, 1908. *American Mathematical Monthly*, vol. 15, No. 4, pp. 71–78; Apr., 1908.
- On the Last Theorem of Fermat. Read (Chicago) Apr. 17, 1908. *Messenger of Mathematics*, vol. 38, Nos. 1–2, pp. 14–32; May–June, 1908.
- EISENHART, L. P. Surfaces with Isothermal Representation of their Lines of Curvature and their Transformations. Read Apr. 27, 1907. *Transactions of the American Mathematical Society*, vol. 9, No. 2, pp. 148–177; Apr., 1908.
- Surfaces with the Same Spherical Representation of their Lines of Curvature as Spherical Surfaces. Read Feb. 24, 1906. *American Journal of Mathematics*, vol. 30, No. 1, pp. 19–42; Jan., 1908.
- EPSTEEN, S. The Probable Error of a Measurement a Unit in Length. Read (Southwestern Section) Dec. 1, 1906. *University of Colorado Journal of Engineering*, vol. 1, no. 3, pp. 17–18; 1907.
- FITE, W. B. Concerning the Degree of an Irreducible Linear Homogeneous Group. Read Sept. 6, 1907. *Bulletin of the American Mathematical Society*, vol. 14, No. 7, pp. 326–329; Apr., 1908.
- FORD, W. B. Sur les Équations Linéaires aux Différences Finies. Read Sept. 6, 1907. *Annali di Matematica*, ser. 3, vol. 13, No. 4, pp. 263–328; Mar., 1907.
- FRÉCHET, M. Sur les Opérations Linéaires (Troisième Note). Read Sept. 6, 1907. *Transactions of the American Mathematical Society*, vol. 8, No. 4, pp. 433–446; Oct., 1907.
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- On the Apsidal Angle in Central Orbits. Read Apr. 27, 1907. *Bulletin of the American Mathematical Society*, vol. 14, No. 1, pp. 6–16; Oct., 1907.
- A Simple Example of a Central Orbit with More than Two Apsidal Distances. Read Apr. 27, 1907. *American Mathematical Monthly*, vol. 14, No. 11, pp. 199–201; Nov., 1907.
- Certain Trajectories Common to Different Laws of Central Force. Read Sept. 6, 1907. *Astronomical Journal*, vol. 26, No. 1, pp. 3–4; Apr. 17, 1908.

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- HASEMAN, C. Some Boundary Problems in the Theory of Functions. Read (Chicago) Dec. 30, 1907. Included in the author's doctor dissertation: *Anwendung der Theorie der Integralgleichungen auf einige Randwertaufgaben in der Funktionentheorie*, Göttingen, 1907.
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- HILL, G. W. Subjective Geometry. Read Feb. 29, 1908. *Bulletin of the American Mathematical Society*, vol. 14, No. 7, pp. 305-313; Apr., 1908.
- HUTCHINSON, J. I. Hermitian Forms with Zero Determinant. Read Dec. 28, 1907. *Bulletin of the American Mathematical Society*, vol. 14, No. 5, pp. 216-220; Feb., 1908.
- JORDAN, H. E. Group-Characters of Various Types of Linear Groups. Two papers read (Chicago) Jan. 1, 1904. *American Journal of Mathematics*, vol. 29, No. 4, pp. 387-405; Oct., 1907.
- KASNER, E. Isothermal Systems in Dynamics. Read Oct. 26, 1907. *Bulletin of the American Mathematical Society*, vol. 14, No. 4, pp. 169-172; Jan., 1908.
- The Inverse of Meusnier's Theorem. Read Apr. 25, 1908. *Bulletin of the American Mathematical Society*, vol. 14, No. 10, pp. 461-465; July, 1908.
- KELLOGG, O. D. Potential Functions on the Boundary of Their Regions of Definition. Read (Southwestern Section) Dec. 1, 1906. *Transactions of the American Mathematical Society*, vol. 9, No. 1, pp. 39-50; Jan., 1908.
- Double Distributions and the Dirichlet Problem. Read (Southwestern Section) Dec. 1, 1906. *Transactions of the American Mathematical Society*, vol. 9, No. 1, pp. 51-66; Jan., 1908.
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- A Discussion by Synthetic Methods of the Covariant Conic of Two Given Conics. Read (San Francisco) Feb. 29, 1908, *American Mathematical Monthly*, vol. 15, No. 2, pp. 29–30, Feb., 1908.
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- LEVI, B. Geometrie Proiettive di Congruenza e Geometrie Proiettive Finite. Read Oct. 27, 1906, *Transactions of the American Mathematical Society*, vol. 8, No. 3, pp. 354–365; July, 1907.
- LOVETT, E. O. On a Class of Periodic Solutions in the Problem of Four Bodies. Read Dec. 27, 1907. *Annali di Matematica*, ser. 3, vol. 14, No. 4, pp. 327–333; Apr., 1908.
- LUNN, A. C. The Deduction of the Electrostatic Equations by the Calculus of Variations. Read (Chicago) Apr. 17, 1908. *Bulletin of the American Mathematical Society*, vol. 14, No. 10, pp. 477–481; July, 1908.
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- On the Groups Generated by Two Operators of Order Three Whose Product is of Order Four. Read (San Francisco) Feb. 23, 1907. *Prace Matematyczno-Fizyczne*, vol. 18, pp. 235–240; 1907.
- Groups Defined by the Orders of Two Generators and the Order of Their Commutator. Read (Chicago) Mar. 30, 1907. *Transactions of the American Mathematical Society*, vol. 9, No. 1, pp. 67–78; Jan., 1908.
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- MOORE, R. L. Geometry in Which the Sum of the Angles of Every Triangle is Two Right Angles. Read (Chicago) Apr. 22, 1905. *Transactions of the American Mathematical Society*, vol. 8, No. 3, pp. 369–378; July, 1907.

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- PORTER, M. B. On a Criterion of Pringsheim's for Expansibility in Taylor's Series. Read (Southwestern Section) Dec. 1, 1906. *Annals of Mathematics*, ser. 2, vol. 8, No. 1, pp. 45-48; Oct., 1906.
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- On a Special Algebraic Curve Having a Net of Minimum Adjoint Curves. Read Sept. 5, 1907. *Bulletin of the American Mathematical Society*, vol. 14, No. 2, pp. 70-74; Nov., 1907.
- STEPHENS, R. P. On a System of Parastroids. Read Dec. 29, 1906. *Annals of Mathematics*, ser. 2, vol. 8, No. 4, pp. 159-171; July, 1907.
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- VAN VLECK, E. B. On Non-Measurable Sets of Points, with an Example. Read Feb. 29, 1908. *Transactions of the American Mathematical Society*, vol. 9, No. 2, pp. 237-244; Apr., 1908.
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- WILSON, E. B. The Equilibrium of a Heavy Homogeneous Chain in a Uniformly Rotating Plane. Read Dec. 28, 1907. *Annals of Mathematics*, ser. 2, vol. 9, No. 3, pp. 99-115; Apr., 1908.
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