

## TENTH ANNUAL LIST OF PAPERS

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

- BLAKE, E. M. Two Plane Movements Generating Quartic Scrolls. Read Dec. 28, 1899. *Transactions of the American Mathematical Society*, vol. 1, No. 4, pp. 421-429; Oct., 1900.
- BLICHFELDT, H. F. Note on the Functions of the Form  $f(x) \equiv \phi(x) + a_1x^{n-1} + a_2x^{n-2} + \dots + a_n$  which in a given Interval Differ the least Possible from Zero. Read (Chicago) April 14, 1900. *Transactions of the American Mathematical Society*, vol. 2, No. 1, pp. 100-102; Jan., 1901.
- A new Determination of the Primitive Continuous Groups in Two Variables. Read April 27, 1901. *Transactions of the American Mathematical Society*, vol. 2, No. 3, pp. 249-258; July, 1901.
- BÔCHER, M. Application of a Method of D'Alembert to the Proof of Sturm's Theorems of Comparison. Read June 29, 1900. *Transactions of the American Mathematical Society*, vol. 1, No. 4, pp. 414-420; Oct., 1900.
- On Linear Dependence of Functions of One Variable. Read Oct. 27, 1900. *Bulletin of the American Mathematical Society*, vol. 7, No. 3, pp. 120-121; Dec., 1900.
- Certain Cases in which the Vanishing of the Wronskian is a Sufficient Condition for Linear Dependence. Read Dec. 28, 1900. *Transactions of the American Mathematical Society*, vol. 2, No. 2, pp. 139-149; April, 1901.
- An Elementary Proof of a Theorem of Sturm. Read Feb. 23, 1901. *Transactions of the American Mathematical Society*, vol. 2, No. 2, pp. 150-151; April, 1901.
- Green's Functions in Space of One Dimension. Read Feb. 23, 1901. *Bulletin of the American Mathematical Society*, vol. 7, No. 7, pp. 297-299; April, 1901.
- Non-Oscillatory Linear Differential Equations of the Second Order. Read Feb. 23, 1901. *Bulletin of the American Mathematical Society*, vol. 7, No. 8, pp. 333-340; May, 1901.
- CAJORI, F. Divergent and Conditionally Convergent Series whose Product is Absolutely Convergent. Read April 28, 1900. *Transactions of the American Mathematical Society*, vol. 2, No. 1, pp. 25-36; Jan., 1901.
- DICKSON, L. E. The Cyclic Subgroup of the Simple Group of Linear Fractional Substitutions of Determinant Unity in two Non-Homogeneous Variables with Coefficients in an Arbitrary Galois Field. Read (Chicago) Dec. 28, 1899. *American Journal of Mathematics*, vol. 22, No. 3, pp. 231-252; July, 1900.
- Determination of an Abstract Simple Group of Order  $2^7 \cdot 3^6 \cdot 5 \cdot 7$  Holoedrically Isomorphic with a certain Orthogonal Group, and

- with a certain Hyperabelian Group. Read (Chicago) April 14, 1900. *Transactions of the American Mathematical Society*, vol. 1, No. 3, pp. 353-370; July, 1900.
- Canonical Forms of Quaternary Abelian Substitutions in an Arbitrary Galois Field. Read (Chicago) Dec. 28, 1900. *Transactions of the American Mathematical Society*, vol. 2, No. 2, pp. 103-138; April, 1901.
- Concerning Real and Complex Continuous Groups. Read Feb. 23, 1901. *Bulletin of the American Mathematical Society*, vol. 7, No. 8, pp. 340-350; May, 1901.
- EISENHART, L. P. A Demonstration of the Impossibility of a Triply Asymptotic System of Surfaces. Read Dec. 28, 1900. *Bulletin of the American Mathematical Society*, vol. 7, No. 4, pp. 184-186; Jan., 1901.
- Possible Triply Asymptotic Systems of Surfaces. Read Feb. 23, 1901. *Bulletin of the American Mathematical Society*, vol. 7, No. 7, pp. 303-305; April, 1901.
- Surfaces whose First and Second Fundamental Forms are the Second and First Respectively of Another Surface. Read Feb. 23, 1901. *Bulletin of the American Mathematical Society*, vol. 7, No. 10, pp. 417-423; July, 1901.
- FIELDS, J. C. On the Reduction of the General Abelian Integral. Read Aug. 16, 1897. *Transactions of the American Mathematical Society*, vol. 2, No. 1, pp. 49-86; Jan., 1901.
- FORD, W. B. Dini's Method of Showing the Convergence of Fourier's Series and Other Allied Developments. Read Dec. 28, 1900. *Bulletin of the American Mathematical Society*, vol. 7, No. 5, pp. 227-230; Feb., 1901.
- GALE, A. S. Wiener's Theory of Displacements, with an Application to the Proof of Four Theorems of Chasles. Read April 28, 1900. *Annals of Mathematics*, 2d series, vol. 2, No. 1, pp. 1-7; Oct., 1900.
- GORDAN, P. Die Hesse'sche und die Cayley'sche Curve. Read June 28, 1900. *Transactions of the American Mathematical Society*, vol. 1, No. 4, pp. 402-413; Oct., 1900.
- HATHAWAY, A. S. Pure Mathematics for Engineering Students. Read (Chicago) Dec. 28, 1900. *Bulletin of the American Mathematical Society*, vol. 7, No. 6, pp. 266-271; March, 1901.
- HAWKES, H. E. Note on Hamilton's Determination of Irrational Numbers. Read Feb. 23, 1901. *Bulletin of the American Mathematical Society*, vol. 7, No. 7, pp. 306-307; April, 1901.
- HILBERT, D. Ueber Flächen von constanter Gauss'scher Krümmung, Read Oct. 27, 1900. *Transactions of the American Mathematical Society*, vol. 2, No. 1, pp. 87-99; Jan., 1901.
- HUTCHINSON, J. I. On Certain Relations Among the Theta Constants. Read Dec. 28, 1899. *Transactions of the American Mathematical Society*, vol. 1, No. 4, pp. 391-394; Oct., 1900.
- On some Birational Transformations of the Kummer Surface into Itself. Read Dec. 28, 1900. *Bulletin of the American Mathematical Society*, vol. 7, No. 5, pp. 211-217; Feb., 1901.

- HYDE, E. W. On a Surface of the Sixth Order Which is Touched by the Axes of all Screws Reciprocal to Three Given Screws. Read April 27, 1901. *Annals of Mathematics*, 2d ser., vol. 2, No. 4, pp. 179-188; July, 1901.
- KASNER, E. The Invariant Theory of the Inversion Group: Geometry upon a Quadric Surface. Read (Columbus) Aug. 25, 1899. *Transactions of the American Mathematical Society*, vol. 1, No. 4, pp. 430-498; Oct., 1900.
- On the Algebraic Potential Curves. Read Feb. 23, 1901. *Bulletin of the American Mathematical Society*, vol. 7, No. 9, pp. 392-399; June, 1901.
- KEYSER, C. J. Theorems Concerning Positive Definitions of Finite Assemblage and Infinite Assemblage. Read Dec. 28, 1900. *Bulletin of the American Mathematical Society*, vol. 7, No. 5, pp. 218-226; Feb., 1901.
- KRAUSE, M. Ueber Systeme von Differentialgleichungen denen vierfach periodische Functionen Genüge leisten. Read (Chicago) April 14, 1900. *Transactions of the American Mathematical Society*, vol. 1, No. 3, pp. 287-292; July, 1900.
- LOUD, F. H. Sundry Metric Theorems Concerning  $n$  Lines in a Plane. Read April 28, 1900. *Transactions of the American Mathematical Society*, vol. 1, No. 3, pp. 323-338; July, 1900.
- LOVETT, E. O. The Condition that a Linear Total Differential Equation be Integral. Read April 28, 1900. *Annals of Mathematics*, 2d series, vol. 1, No. 4, pp. 175-176; July, 1900. Also *Report of the British Association for the Advancement of Science*, 1899, p. 652.
- Note on Geometry of Four Dimensions. Read April 28, 1900. *Bulletin of the American Mathematical Society*, vol. 7, No. 2, pp. 88-100; Nov., 1900.
- Construction of the Geometry of Euclidean  $n$ -Dimensional Space by the Theory of Continuous Groups. Read Oct. 27, 1900. *American Journal of Mathematics*, vol. 23, No. 1, pp. 57-67; Jan., 1901.
- MCCCLINTOCK, E. A Simplified Solution of the Cubic. Read Dec. 28, 1900. *Annals of Mathematics*, 2d series, vol. 2, No. 3, pp. 151-152; April, 1901.
- MARTIN, E. N. On the Imprimitve Substitution Groups of Degree Fifteen and the Primitive Substitution Groups of Degree Eighteen. Read Aug. 25, 1899. *American Journal of Mathematics*, vol. 23, No. 3, pp. 259-286; July, 1901.
- MERTENS, F. Zur linearen Transformation der  $\vartheta$ -Reihen. Read (Chicago) Apr. 6, 1901. *Transactions of the American Mathematical Society*, vol. 2, No. 3, pp. 331-342; July, 1901.
- MILLER, G. A. On the Groups which have the Same Group of Isomorphisms. Read Dec. 28, 1899. *Transactions of the American Mathematical Society*, vol. 1, No. 4, pp. 395-401; Oct., 1901.
- On Holomorphisms and Primitive Roots. Read Feb. 23, 1901. *Bulletin of the American Mathematical Society*, vol. 7, No. 8, pp. 350-354; May, 1901.
- On the Groups Generated by Two Operators. Read Apr. 27, 1901. *Bulletin of the American Mathematical Society*, vol. 7, No. 10, pp. 424-426; July, 1901.

- Determination of all the Groups of Order  $p^m$  which Contain the Abelian Group of Type  $(m-2, 1)$ ,  $p$  being any Prime. Read (Chicago) Apr. 6, 1901. *Transactions of the American Mathematical Society*, vol. 2, No. 3, pp. 259-272; July, 1901.
- MOORE, E. H. A Fundamental Remark Concerning Determinantal Notations with the Evaluation of an Important Determinant of Special Form. Read (Chicago) April 14, 1900. *Annals of Mathematics*, 2d series, vol. 1, pp. 177-188; July, 1900.
- The Cross-Ratio Group of  $n!$  Cremona Transformations of Order  $n-3$  in Flat Space of  $n-3$  Dimensions. Read (Buffalo) 1896. *American Journal of Mathematics*, vol. 22, No. 3, pp. 279-291; July, 1900.
- A Simple Proof of the Fundamental Cauchy-Goursat Theorem. Read June 29, 1900. *Transactions of the American Mathematical Society*, vol. 1, No. 4, pp. 499-506; Oct., 1900.
- Concerning Harnack's Theory of Improper Definite Integrals. Read (Chicago) Dec. 27, 1900. *Transactions of the American Mathematical Society*, vol. 2, No. 3, pp. 295-330; July, 1901.
- MORITZ, R. E. Extension of Hurwitz's Proof for the Transcendence of  $e$  to the Transcendence of  $\pi$ . Read (Chicago) April 14, 1900. *Annals of Mathematics*, 2d series, vol. 2, No. 2, pp. 57-59; Jan., 1901.
- MORLEY, F. The Value of  $\int_0^{\pi/2} (\log 2 \cos \phi)^m \phi^n d\phi$ . Read April 29, 1899. *Bulletin of the American Mathematical Society*, vol. 7, No. 9, pp. 390-392; June, 1901.
- NEWSON, H. B. Indirect Circular Transformations and Mixed Groups. Read Feb. 23, 1901. *Bulletin of the American Mathematical Society*, vol. 7, No. 6, pp. 259-266; March, 1901.
- OSGOOD, W. F. On the Existence of the Green's Function for the most General Simply Connected Plane Region. Read June 29, 1900. *Transactions of the American Mathematical Society*, vol. 1, No. 3, pp. 310-314; July, 1900.
- On the Existence of a Minimum of the Integral  $\int_{x_0}^{x_1} F(x, y, y') dx$  when  $x_0$  and  $x_1$  are Conjugate Points, and the Geodesics on an Ellipsoid of Revolution: a Revision of a Theorem of Kneser's. Read Dec. 23, 1900. *Transactions of the American Mathematical Society*, vol. 2, No. 2, pp. 166-182; April, 1901.
- On a Fundamental Property of a Minimum in the Calculus of Variations and the Proof of a Theorem of Weierstrass. Read April 27, 1901. *Transactions of the American Mathematical Society*, vol. 2, No. 3, pp. 273-294; July, 1901.
- PEIRCE, G. A Curious Approximate Construction for  $\pi$ . Read Apr. 27, 1901. *Bulletin of the American Mathematical Society*, vol. 7, No. 10, pp. 426-427; July, 1901.
- PELL, A. "D" Lines on Quadrics. Read (Columbus) Aug. 25, 1899. *Transactions of the American Mathematical Society*, vol. 1, No. 3, pp. 315-322; July, 1900.
- PIERPONT, J. P. Galois' Theory of Algebraic Equations. Part II. Irrational Resolvents. Read Sept., 1896. *Annals of Mathematics*, 2d series, vol. 2, No. 1, pp. 22-56; Oct., 1900.

- PORTER, M. B. Sets of Coincidence Points on the Non-Singular Cubics of a Syzygetic Sheaf. Read June 29, 1900, under a different title. *Transactions of the American Mathematical Society*, vol. 2, No. 1, pp. 37-42; Jan., 1901.
- PUPIN, M. I. Wave Propagation Over Non-Uniform Electrical Conductors. Read Dec. 28, 1899. *Transactions of the American Mathematical Society*, vol. 1, No. 3, pp. 259-286; July, 1900.
- REID, L. W. A Table of Class Numbers for Cubic Number Bodies, with the Method of their Calculation. Read Feb. 24, 1900. *American Journal of Mathematics*, vol. 23, No. 1, pp. 68-84; Jan., 1901.
- ROE, E. D. On a Formula of Interpolation. Read Dec. 28, 1900. *American Mathematical Monthly*, vol. 8, No. 1, pp. 1-9; Jan., 1901.
- SLAUGHT, H. E. The Cross-Ratio Group of 120 Quadratic Cremona Transformations of the Plane. Part Second: Complete Form-System of Invariants. Read Dec. 28, 1900. *American Journal of Mathematics*, vol. 23, No. 2, pp. 99-138; April, 1901.
- SMITH, P. F. On Surfaces Enveloped by Spheres Belonging to a Linear Spherical Complex. Read June 29, 1900, under a different title. *Transactions of the American Mathematical Society*, vol. 1, No. 4, pp. 371-390; Oct., 1900.
- Geometry within a Linear Spherical Complex. Read Oct. 27, 1900. *Transactions of the American Mathematical Society*, vol. 2, No. 3, pp. 234-248; July, 1901.
- SNYDER, V. On Some Invariant Scrolls in Collineations which Leave a Group of Five Points Invariant. Read April 28, 1900. *American Journal of Mathematics*, vol. 22, No. 3, pp. 253-258; July, 1900.
- On a Special Form of Annular Surfaces. Read June 27, 1900. *American Journal of Mathematics*, vol. 23, No. 2, pp. 166-172; April, 1901.
- On a System of Plane Curves Having Factorable Parallels. Read Dec. 28, 1900. *Bulletin of the American Mathematical Society*, vol. 7, No. 7, pp. 299-302; April, 1901.
- STECKER, H. F. On the Determination of Surfaces Capable of Conformal Representation upon the Plane in such a Manner that Geodetic Lines are Represented by Algebraic Curves. Read Feb. 23, 1901. *Transactions of the American Mathematical Society*, vol. 2, No. 2, pp. 152-165; April, 1901.
- STRINGHAM, I. On the Geometry of Planes in a Parabolic Space of Four Dimensions. Read (Chicago) Dec. 27, 1900. *Transactions of the American Mathematical Society*, vol. 2, No. 2, pp. 183-214; April, 1901.
- STRONG, W. M. Note on Non-Quaternion Number Systems. Read (Columbus) Aug. 25, 1899. *Transactions of the American Mathematical Society*, vol. 2, No. 1, pp. 43-48; Jan., 1901.
- VAN VLECK, E. B. On Linear Criteria for the Determination of the Radius of Convergence of a Power Series. Read Feb. 24, 1900. *Transactions of the American Mathematical Society*, vol. 1, No. 3, pp. 293-309; July, 1900.
- On the Convergence of Continued Fractions with Complex Elements. Read Feb. 23, 1901 and April 27, 1901. *Transactions of the American Mathematical Society*, vol. 2, No. 3, pp. 215-233; July, 1901.

- WESTLUND, J. Note on Multiply Perfect Numbers. Read Apr. 6, 1901. *Annals of Mathematics*, 2d series, vol. 2, No. 4, pp. 172-174; July, 1901.
- WILCZYNSKI, E. J. An Application of Group Theory to Hydrodynamics. Read (Chicago) Dec. 29, 1899. *Transactions of the American Mathematical Society*, vol. 1, No. 3, pp. 339-352; July, 1900.
- Transformations of Systems of Linear Differential Equations. Read April 28, 1900. *American Journal of Mathematics*, vol. 23, No. 1, pp. 29-36; Jan., 1901.
- WOOD, R. G. The Collineations of Space which Transform a Non-Degenerate Quadric Surface into Itself. Read Dec. 28, 1900. *Annals of Mathematics*, 2d series, vol. 2, No. 4, pp. 161-171; July, 1901.