NOTES

A new journal, the Rendiconti del Seminario Matematico della Reale Università di Padova, has been founded, under the editorship of A. Comessatti, E. Laura, A. Tonolo, and G. Vitali.

The next International Congress of Applied Mathematics will be held at Cambridge, England, in the Summer of 1934.

The Centenary Meeting of the British Association for the Advancement of Science will be held at London, September 23–30, 1931, under the presidency of General Smuts. Sir J. J. Thomson has been elected president of Section A (mathematical and physical sciences).

The Mexican scientific society "Antonio Alzate" (founded in 1884) has, by virtue of a resolution passed by the President of the Republic and the Department of Public Instruction, been constituted as the National Academy of Sciences, under the title Academia Nacional de Ciencias Antonio Alzate, and was inaugurated December 9, 1930.

At the Cleveland meeting of the American Association for the Advancement of Science, Assistant Professor C. F. Roos, of the department of mathematics of Cornell University, was elected permanent secretary, as successor to Professor B. E. Livingston, who becomes general secretary. Professor E. R. Hedrick was elected vice-president and chairman of Section A (mathematics), and Professor G. C. Evans vice-president and chairman of Section K (social and economic sciences).

At the annual meeting of the Mathematical Association of America, Professor E. T. Bell was elected president, and Professors Arnold Dresden and C. N. Moore vice-presidents.

The Paris Academy of Sciences announces the award of the following prizes for 1930: the Poncelet prize to Arnaud Denjoy, for his mathematical work; the Francœur prize to Eugene Fabry, for his study of the singularities of analytic functions; the Henri de Parville prize to Emile Duchêne, for his work in aerodynamics and ballistics; the Lalande prize to Nicolas Stoyko, for his theoretical and practical work in the calculation of planetary orbits; the Pierre Guzman prize to Alexandre Véronnet, for his work in cosmogony; the Delalande-Guérineau prize to Félix Ollivier, for his work on photogrammetry entitled *La Topographie dans Topographes*; the LaCaze prize to Henri Abraham, for his scientific work; the Hébert prize to Richard Langlois, for his work entitled *Les Machines Asynchrones à Champs Tournants, à Bagues et à Collecteur, Théorie Générale et Applications*; The Montyon prize in statistics to René Roy, for his work in the application of mathematics to statistics and economics; the Binoux prize for history and philosophy of the sciences jointly to Pierre Brunet, for his work entitled *Les Physiciens Hollandais et la Méthode Expérimentale en France au XVIIIe Siècle* and his biography of Maupertuis, and to Niels Nielsen, for his work entitled *Géomètres Français sous la Révolution*; the Jeanbernat-

Doria prize to Henri Volkringer, for his work entitled *Les Étapes de la Physique*; the Grand Prix for mathematical sciences to Georges Valiron, for his work in analytic functions; the LeConte prize to Elie Cartan, for his mathematical work, especially in infinite groups, differential geometry, and integral invariants; the Houllevigue prize to Georges Giraud, for his work in partial differential equations; the Caméré prize to David Wolkowitsch, for his work entitled *Applications de la Géométrie à la Stabilité des Constructions*; the Hirn Foundation prize to Maurice Kraïtchik, for his research and treatises on the theory of numbers.

The scientific prize of the Lasserre Foundation has been awarded to Professor Georges Giraud, of the University of Clermont.

The Ernst Abbe prize of the Carl Zeiss foundation has been awarded to Dr. Philip Furtwängler, professor of mathematics at the University of Vienna.

The Alfred Ackermann-Teubner memorial prize of 1930 has been awarded to Professor Johannes Tropfke, for his *Geschichte der Elementar-Mathematik* and his work on the share of Archimedes in the development of trigonometry.

The Council of the Royal Astronomical Society has awarded its gold medal to Professor W. de Sitter, for his theoretical investigations on the orbits of the satellites of Jupiter and his contributions to the theory of relativity.

The New York Academy of Sciences has awarded one of its A. Cressy Morrison prizes to Professor H. von Zeipel, of the Astronomical Observatory of Upsala, for his paper entitled *The evolution and constitution of stars*.

Emile Jouguet has been elected a member of the Paris Academy of Sciences in the section of mechanics, as successor to the late Hippolyte Sebert.

Professor Emile Picard has received an honorary doctorate from the University of Liége.

Professor Max Planck has been made chancellor of the Prussian Order of Merit for Science and Art.

On the occasion of its seventy-fifth anniversary, the Zurich Technical School has conferred an honorary doctorate on Professor Ludwig Prandtl, of Göttingen.

Sir Ernest Rutherford, professor of experimental physics and director of the Cavendish Laboratory of the University of Cambridge, has been made a baron.

In the Faculty of Sciences of the University of Paris, the following maîtres de conférences have been promoted to professorships: Pauthenier (physics), Beghin and Foch (mechanics of fluids).

Dr. E. Wieselberger, of the Kaiser-Wilhelm Institut für Strömungsforschung at Göttingen, has been appointed professor of applied mathematics at the Aachen Technical School.

Professor Wilhelm Blaschke, of the University of Hamburg, has recently delivered lectures, as visiting lecturer of the American Mathematical Society,

at the following Universities and Colleges: Princeton, January 6, 7; Swarthmore, January 8; Columbia, January 14, 15; Cornell, January 22, 23; Chicago, January 27, 28; Iowa, February 4; Wisconsin, February 11; Ohio State, February 13, 14; Dartmouth, February 16, 17; Massachusetts Institute of Technology, February 19, 20, 24; Harvard, February 25; Brown, February 26. The subjects of these lectures were "Topological Questions of Differential Geometry," "Selected Topics from Differential Geometry," "Mathematical Problems of Nomography," and "The Geometrical Foundations of the Theory of Relativity." Professor Blaschke will lecture at the Johns Hopkins University as James Speyer Visiting Professor of Mathematics from March 2 to May 8, 1931, on "Topological Questions in Differential Geometry."

Professor Leonida Tonelli, of the University of Bologna, has been appointed to the professorship of infinitesimal analysis at the University of Pisa. He will be succeeded at Bologna by Professor Giuseppe Vitali, of the University of Padova.

Dr. R. Caccioppoli has been named professor of algebra in the University of Padua.

Dr. G. Mignosi has been named professor of algebra in the University of Cagliari.

Professor Albert Einstein will be in residence at Oxford University during the summer of 1931; he will deliver the Rhodes memorial lecture for the year 1930–31.

Dr. R. A. Fisher, Chief Statistician of Rothamsted Agricultural Experimental Station, Harpenden, England, will be in residence on the staff at the Iowa State College during the first half of the summer session, June 16 to July 24 and later will visit a number of colleges, universities, and experiment stations throughout the country. In connection with Doctor Fisher's visit, Iowa State College announces a special group of summer session courses covering the theory and application of statistics.

At Trinity College, Cambridge, A. S. Besicovitch and L. Wittgenstein have been elected to fellowships.

The following seventy-six doctorates with mathematics or mathematical physics as major subject were conferred during 1930 in universities in the United States and Canada; the major subject is mathematics unless otherwise specified. The university, month in which the degree was conferred, minor subject (other than mathematics), and title of dissertation are given in each case if available.

Virgil Adkinsson, Pennsylvania, June, *Cyclically connected continuous curves whose complementary domain boundaries are homeomorphic, preserving branch points.*

R. P. Agnew, Cornell, June, minor in physics, *The behavior of bounds and oscillations of sequences of functions under regular transformations.*

Rose L. Anderson, Bryn Mawr, June, minor in physics, *A problem in the simultaneous reduction of two quadratic forms in infinitely many variables.*

C. A. Andree, Wisconsin, June, major in electrical engineering physics, minor in mathematics, *An impact strain recorder.*

J. V. Atanasoff, Wisconsin, June, major in mathematical physics, minor in mathematics, *The dielectric constant of helium.*

R. F. Bacher, Michigan, June, *The Zeeman effect of hyperfine structure.*

E. B. Baker, Michigan, June, *The application of the Fermi statistics to the calculation of the potential distribution of positive ions.*

C. F. Bowles, Chicago, August, *Integral surfaces of pairs of differential equations of the third order.*

M. G. Boyce, Chicago, March, *An envelope theorem and necessary conditions for a problem of Mayer with variable end-points.*

Leonard Bristow, Illinois, May, minor in physics. *Expansion theory associated with linear differential equations and their regular singular points.*

L. H. Bunyan, Wisconsin, June, *A transformation of a certain integral equation and a theorem concerning an integro-differential equation.*

J. H. Bushey, Michigan, June, *Asymptotic expressions for a certain class of definite integrals.*

Hung Chi Chang, Michigan, June, *Transformation of linear partial differential equations.*

Elizabeth M. Cooper, Illinois, June, minor in physics, *Perspective elliptic curves.*

J. J. Corliss, Michigan, June, *On the unsymmetric top.*

A. E. Currier, Harvard, June, *The problem of the calculus of variations in m-space with end points variable on two manifolds.*

E. H. Cutler, Harvard, June, *Some properties of general subspaces of a Riemann space.*

M. N. Davis, Wisconsin, June, major in physics, minor in mathematics, *A study and partial explanation of the emission of secondary electrons from cobalt.*

E. H. Dixon, Wisconsin, June, major in physics, minor in mathematics, *The photoelectric and thermionic properties of rhodium.*

L. H. Donnell, Michigan, June, *Some examples of mechanical wave transmission.*

W. L. Duren, Jr., Chicago, August, *The development of sufficient conditions in the calculus of variations.*

W. H. Durfee, Cornell, February, minor in physics, *Summation factors which are powers of a complex variable.*

L. A. Dye, Cornell, June, minor in physics, *Involutorial transformation in S_3 of order n with an $(n-1)$-fold line.*

G. L. Edgett, Illinois, August, minor in astronomy, *Frequency distributions with given statistics which are not all moments.*

C. M. Erikson, Michigan, June, *Systems of linear difference equations with constant coefficients*

O. J. Farrell, Harvard, June, (1), *On the expansion of harmonic functions in*

terms of harmonic polynomials; (2), *On approximation to an arbitrary function of a complex variable by polynomials.*

E. J. Finan, Ohio State, August, *Determination of the domains of integrity of the complete rational matric algebra of order four.*

W. W. Flexner, Princeton, June, *On topological manifolds.*

H. L. Garabedian, Princeton, June, *On the relation between certain methods of summability.*

B. P. Gill, Columbia, July, *An analogue for analytic functions of the Thue-Siegel theorem.*

Beatrice L. Hagen, Chicago, August, *Quintuples of three dimensional varieties in a four-dimensional linear space.*

Frances Harshbarger, Illinois, May, minor in physics, *The geometric configuration defined by a special algebraic relation of genus four.*

G. A. Hedlund, Harvard, June, (1), *Geodesics on a two-dimensional Riemannian manifold with periodic coefficients;* (2) *Poincaré's rotation number and Morse's type number.*

V. A. Hoyle, Princeton, June, *Some problems in conformal geometry.*

H. K. Hughes, Michigan, June, *On the analytical extension of functions defined by factorial series.*

Aline Huke, Chicago, March, *An historical and critical study of the fundamental lemma in the calculus of variations.*

F. C. Jonah, Brown, October, *The Green's matrix and expansion problem for systems of integro-differential equations.*

T. H. Kiang, Harvard, June, *Existence of critical points of harmonic functions of three variables.*

Edna E. Kramer, Columbia, June, *On the Laguerre group and allied topics.*

C. C. Krieger, Toronto, June, minor in the theory of relativity, (1), *On the summability of trigonometrical series with localized properties;* (2) *On Fourier constants and convergence factors of double Fourier series.*

H. I. Lane, Cornell, September, *The separation of the projective plane by the lines joining six points.*

Voris Latshaw, Indiana, June, minor in physics, *The algebra of self-adjoint boundary value problems.*

D. H. Lehmer, Brown, June, *An extended theory of Lucas' functions.*

C. N. Liu, Harvard, June, *Contributions to the restricted problem of three bodies.*

Shu Ting Liu, Michigan, June, *Theory of periodic orbits for asteroids of integral types.*

W. H. McEwen, Minnesota, July, minor in physics, *Problems of closest approximation connected with the solution of linear differential equations.*

E. J. McShane, Chicago, June, *Semi-continuity in the calculus of variations, and absolute minima for isoperimetric problems.*

C. W. Mendel, Chicago, June, *Contributions to the projective differential geometry of hyperspace.*

C. A. Messick, Chicago, August, *Symmetric functions of infinitely many elements.*

E. W. Miller, Michigan, June, *Concerning subsets of a continuous curve which lie on an arc of the continuous curve.*

Ethel I. Moody, Cornell, June, minor in philosophy, *A Cremona group of order thirty-two of cubic transformations in three dimensional space.*

G. C. Munro, Michigan, June, *Systems of linear partial differential equations with constant coefficients.*

Alexander Oppenheim, Chicago, June, *The minima of indefinite quaternary quadratic forms.*

T. S. Peterson, Ohio State, June, *The invariant theory of functional forms under the group of linear functional transformations of the third kind.*

O. H. Rechard, Wisconsin, June, minor in philosophy, *The expansion problem associated with a class of ordinary differential boundary-value problems.*

D. P. Richardson, Chicago, August, *Quadratic Cremona transformations of five-dimensional space.*

D. A. F. Robinson, Chicago, June, *Fourier expansions of pseudo doubly periodic functions with applications.*

Ragner Rollefson, Wisconsin, June, major in physics, minor in mathematics, *The continuous and band spectrum of mercury.*

L. R. Salvosa, Michigan, June, *Generalizations of the normal curve of error.*

H. W. Sibert, Cincinnati, June, *Moderately thick plates with plane faces.*

R. G. Smith, Kansas, June, minor in physics, *A canonical form for the differential equations of curves in n-dimensional space.*

Elizabeth T. Stafford, Wisconsin, June, *Matrices conjugate to a given matrix with respect to its minimum equation.*

G. W. Starcher, Illinois, May, minor in physics, *On identities arising from solutions of q-difference equations and some interpretations in number theory.*

H. E. Stetson, Iowa, February, minor in physics, *Double function space.*

C. W. Strom, Illinois, June, minor in physics, *On complete systems under certain finite groups.*

Mildred E. Taylor, Illinois, August, minor in physics, *A determination of the types of planar Cremona transformations with not more than 9 F-points.*

H. P. Thielman, Ohio State, June, (1), *On new integral addition theorems for Bessel functions and series of the hypergeometric type*; (2), *The application of functional operations to a class of integral equations occurring in physics.*

W. R. Thompson, Yale, June, *The possible forms of discriminants of algebraic fields.*

R. S. Underwood, Chicago, June, *On universal quadratic null forms in five variables.*

Charles Wexler, Harvard, June, *On the theory of quadratic fields.*

J. H. C. Whitehead, Princeton, June, *The representation of projective space.*

F. L. Wren, Chicago, March, *A new theory of parametric problems in the calculus of variations.*

H. M. Yarbrough, Indiana, June, minor in astronomy, *Linear cyclic groups with given fundamental region.*

R. C. Yates, Johns Hopkins, June, *The small vibrations of certain mechanical systems.*

J. Yerushalmy, Johns Hopkins, June, *The construction of equianharmonic cubics.*

L. A. Young, Michigan, June, *The Wentzler-Brioullin-Kramers approximate solution of the Schrödinger wave equation.*

Dr. Nola L. Anderson has been appointed associate professor and acting chairman of the department of mathematics at Sophie Newcomb College.

Professor G. B. Drummond, formerly at the Mississippi Agricultural and Mechanical College, has been appointed an assistant professor of mathematics at the Oklahoma Agricultural and Mechanical College.

Dr. Wolfgang Pauli, of the Zurich Technical School, and Dr. Arnold Sommerfeld, of the University of Munich, have been appointed lecturers in theoretical physics at the University of Michigan for the summer session of 1931.

Dr. N. B. MacLean, formerly professor of mathematics at the University of Winnipeg, has been appointed professor of Mathematics at McGill University, as successor to Professor D. A. Murray, retired.

The following appointments to instructorships in mathematics are announced:
Iowa State College, J. C. Hempstead;
University of Michigan, Dr. J. D. Elder.

Professor P. Gazzaniga, of the University of Padova, died October, 18, 1930, at the age of seventy-seven.

Dr. E. Stübler, professor of descriptive geometry, financial mathematics, and insurance mathematics at the Charlottenburg Technical School, died in December, 1930, at the age of fifty-eight.

Dr. Frantisek Wald, professor of physical chemistry at the Czech Technical School at Prague, died October 19, 1931.

Professor R. A. Sheets, of Denison University, died December 3, 1930.

Professor H. E. Trefethen, a teacher of mathematics and astronomy in Colby College for nearly twenty years, died on November 3, 1930.

Professor J. Ricard, S. J., formerly professor of mathematics and director of the observatory at the University of Santa Clara, has died, at the age of eighty.