

## NOTES

Mr. G. Y. Rainich, of Johns Hopkins University, and Professor J. F. Ritt, of Columbia University, have been appointed associate editors of the *TRANSACTIONS OF THIS SOCIETY*.

The following university courses for the academic year 1925-1926 are announced:

**COLUMBIA UNIVERSITY.**—By Professor T. S. Fiske: Fundamental concepts of mathematics; Differential equations.—By Professor F. N. Cole: Theory of groups.—By Professor C. J. Keyser: Modern theories in geometry; Introduction to mathematical philosophy (first semester).—By Professor D. E. Smith: History of mathematics, first and second courses (first semester); History of mathematics, advanced course (first semester); Seminar in the history of mathematics (first semester).—By Professor Edward Kasner: Seminar in differential geometry.—By Professor W. B. Fite: Differential equations.—By Professor J. F. Ritt: Elliptic functions (first semester); Advanced course in the theory of functions of a complex variable (second semester).—By Professor G. A. Pfeiffer: Analysis situs (second semester).—By Dr. M. H. Stone: Fourier series and related topics.

**HARVARD UNIVERSITY.**—By Professor W. F. Osgood: Advanced calculus; Functions of real variables; Linear differential equations of the second order, complex variables.—By Professor J. L. Coolidge: Subject matter of elementary mathematics; Probability; Algebraic plane curves.—By Professor E. V. Huntington: Fundamental concepts of mathematics.—By Professor O. D. Kellogg: Elementary theory of differential equations; Theory of potential functions; Dynamics (second course).—By Professor G. D. Birkhoff: Space, time, and relativity.—By Professor W. C. Graustein: Introduction to modern geometry; Projective geometry; Non-euclidean geometry.—By Dr. H. W. Brinkmann: Theory of functions; Partial differential equations of mathematical physics.—By Professor E. T. Bell (University of Washington): Theory of numbers.—By Dr. L. M. Graves (National Research Fellow): Calculus of variations.—By Mr. B. O. Koopman: Analytical theory of heat, problems in elastic vibrations; Modern methods in dynamics. Professor Bell and Dr. Brinkmann will conduct a fortnightly seminar in analysis and the theory of numbers. Courses of research are also offered by Professor Osgood in analysis, by Professor Coolidge in geometry, by Professor Kellogg in potential theory, by Professor Birkhoff in the theory of differential equations, by Professor Graustein in geometry, and by Dr. Brinkmann in the theory of groups.

From forty to fifty fellowships for advanced study abroad will be awarded annually by the John Simon Guggenheim Memorial Foundation, beginning with the academic year 1926-27. These fellowships are open to men and women; research or other productive work may be pursued in any academic subject or in the arts. The annual stipend is about \$2500. Applications should be sent to the office of the Foundation, 2300 Pershing Square Building, New York City.

Applications for American Field Service Fellowships for study in French universities for the academic year 1926-27 should be sent to Stephen P. Duggan, 522 Fifth avenue, New York City, not later than December 15, 1925. Mr. W. E. Byrne, of Rensselaer Polytechnic Institute, has been appointed fellow in mathematics for 1925-26.

The Belgian Academy announces the following subjects for prizes in mathematics for the year 1926: *A contribution to the infinitesimal geometry of curved surfaces*; *A contribution to the theory of the absorption of light in interstellar space*.

In 1914 a committee was formed under the auspices of the Paris Academy of Sciences, with Professor Paul Appell as chairman, to found a prize and medal in honor of Henri Poincaré, for the encouragement of research in the fields of mathematical analysis, celestial mechanics, mathematical physics, and the philosophy of sciences. The work of this committee, which was interrupted by the war, has now been taken up again, and it is hoped to begin the annual awards shortly.

Cambridge University has awarded a Smith's prize to Mr. T. G. Room, of St. John's College, for an essay entitled *Varieties generated by collinear stars in hyperspace*. The Adams prize for an essay on *The physical state of matter at high temperatures* (see this BULLETIN, vol. 29, p. 235) has been awarded to Mr. R. H. Fowler, of Trinity College. The subject announced for the Adams prize for 1925-26 is *The constitution of the interior of the earth and the propagation of waves through the interior and over the surface of the earth*.

The Barnard medal has been awarded by Columbia University to Professor Neils Bohr, of the University of Copenhagen, in recognition of his work on atomic structure.

On the occasion of his recent visit to Buenos Aires, Professor Albert Einstein was elected an honorary member of the Argentine Academy of Science.

Professor Willy Wien, of Würzburg, has been elected an honorary fellow of the Physical Society of London.

Oxford University has conferred an honorary doctorate on Professor Paul Appell.

Professors Paul Appell and Emile Picard have been elected honorary members of the Russian Academy of Sciences.

Professor L. Lecornu has been promoted to be a commander of the Légion d'Honneur.

Eugène Fichot, director of the French naval hydrographic service, and known for his work in tidal theory, has been elected a member of the Paris Academy of Sciences in the section of geography and navigation.

The following mathematicians have been recommended by the president and council of the Royal Society of London for election as fellows: R. H. Fowler, Harold Jeffreys, Joseph Proudman.

The University of Edinburgh has conferred an honorary degree on Professor A. S. Eddington.

Dr. J. H. Jeans has been elected president of the Royal Astronomical Society.

Professor Richard Gans, of the University of La Plata, has been appointed professor of physics at the University of Königsberg.

Professor Hans Rademacher, of the University of Hamburg, has been appointed professor of mathematics at the University of Breslau.

Professor Lothar Schrutka, of the Brünn Technical School, has been appointed professor of mathematics at the Technical School at Vienna.

Professor G. Togliatti, of Turin, has been appointed professor of applied mathematics at the University of Zürich.

At the University of Paris, Professor Paul Montel has been transferred to the professorship of rational mechanics; Professor Gaston Julia succeeds him in the chair of general mathematics. J. Chazy has been appointed chargé de cours.

A readership in mathematical physics has been created recently at the University of Bristol, from the Wills bequest; Dr. J. E. Jones has been appointed the first reader.

Mr. W. L. Fellar, of the University of Edinburgh, has been appointed to a tutorial fellowship at Hertford College, Oxford.

The following 34 doctorates with mathematics or mathematical physics as major subject were conferred by American universities during 1924; the university, month in which the degree was conferred, minor subject (other than mathematics), and title of dissertation are given in each case.

R. W. Babcock, Wisconsin, October, *On thermal convection*.

Herman Betz, Yale, June, *Surface transformations applied to dynamical systems with two degrees of freedom*.

A. D. Campbell, Cornell, September, philosophy, *Linear systems of conics in the Galois field*.

Elizabeth Carlson, Minnesota, June, physics, *On the convergence of certain methods of closest approximation.*

G. H. Collignon, Johns Hopkins, June, geophysics, *Problems of flow in connection with mapping of spherical polygons.*

Julia T. Colpitts, Cornell, June, philosophy, *On a certain class of entire functions.*

Julia Dale, Cornell, June, physics, *Some properties of the exponential mean.*

Marguerite D. Darkow, Chicago, August, *Arithmetics of certain algebras of generalized quaternions.*

W. W. Elliott, Cornell, June, physics, *Generalized Green's functions for compatible differential systems.*

Bess M. Eversull, Cincinnati, June, physics, *The summability of the triple Fourier's series at points of discontinuity of the function developed.*

F. J. Gerst, Johns Hopkins, June, geophysics, *Image points and Riemann's theorem.*

Cornelius Gouwens, Chicago, August, *Invariants of the linear group modulo  $p_1^{\lambda_1} \dots p_n^{\lambda_n}$ .*

L. M. Graves, Chicago, August, *The derivative as independent function in the calculus of variations.*

C. F. Gummer, Chicago, August, *The relative distribution of the real roots of a system of polynomials.*

J. W. Hedley, Chicago, August, *Ruled surfaces whose flecnode curves belong to linear complexes.*

P. E. Hemke, Johns Hopkins, June, physics, *A transformation involving  $\zeta$ -functions with an aerodynamical application.*

J. L. Holley, Harvard, *Linear spaces and their fixed points.*

Harold Hotelling, Princeton, June, *Three-dimensional manifolds of states of motion.*

Jewell C. Hughes, Chicago, August, *A problem in the calculus of variations in which one end-point is variable on a one-parameter family of curves.*

Mildred Hunt, Chicago, June, *The arithmetics of certain linear algebras.*

M. H. Ingraham, Chicago, June, *A general theory of linear sets.*

C. M. Jensen, Minnesota, June, physics, *Some problems in the approximate representation of a function by a Sturm-Liouville interpolation formula.*

C. G. Latimer, Chicago, August, *Arithmetic of generalized quaternions.*

Harry Levy, Princeton, June, *Tensors determined by a hypersurface in a Riemann space.*

J. B. Linker, Johns Hopkins, June, geophysics, *Equations of motion*.

L. H. McFarlan, Missouri, June, physics, *Transformation of the Euler equations in the calculus of variations*.

Aristotle Michal, Rice Institute, June, (a) *Integro-differential expressions invariant under Volterra group of transformations*; (b) *Functions of curves invariant under point transformations of the plane*.

J. A. Nyswander, Chicago, June, *A direct method of obtaining the solutions of systems of linear differential equations having constant coefficients*.

R. G. Putnam, Chicago, June, *On solutions of special, linear, third-order differential systems*.

B. P. Reinsch, Illinois, June, mechanics, *Expansion problems in connection with the hypergeometric differential equation*.

D. S. Saund, California, May, analytic mechanics, *The periodic solutions of the equation of the elliptic cylinder*.

J. H. Taylor, Chicago, June, *A generalisation of Levi-Civita's parallelism and the Frenet formulas*.

Marian M. Torrey, Cornell, June, physics, *On monoidal space transformations in which the monoids have a fixed tangent cone*.

D. V. Widder, Harvard, *Theorems of mean value and trigonometric interpolation*.

The following degree, conferred in 1923, should have been included in our list for that year (this BULLETIN, vol. 30, pp. 474-75):

Frederick Wood, Wisconsin, June, *Group-velocity and the propagation of disturbances in dispersive media*.

Professor E. A. Bailey, of La Grange College, has been appointed dean.

Dr. Henry Blumberg, of the University of Illinois, has been appointed professor of mathematics at Ohio State University.

At Brown University, Assistant Professor R. W. Burgess has resigned and will continue the statistical work with the Western Electric Company which he has been doing during the year 1924-25 while on leave of absence. Dr. C. R. Adams has been promoted to an assistant professorship.

At Cornell University, Assistant Professors W. B. Carver and D. C. Gillespie have been promoted to full professorships.

Assistant Professor C. A. Garabedian, of Northwestern University, has been appointed associate professor of mathematics in the University of Cincinnati.

At Harvard University, Professor J. L. Walsh has been granted leave of absence for the academic year 1925-26, and Professor G. D. Birkhoff for the second semester. Professor E. T. Bell has been appointed visiting lecturer for the first half-year.

Professor J. N. Michie, of the University of Texas, has been appointed head of the department of mathematics at Texas Technology College.

Associate Professor W. L. Miser, of the Armour Institute of Technology, has been appointed professor of mathematics at Vanderbilt University.

Professor D. E. Smith, of the faculty of pure science and Teachers College, Columbia University, retires at the end of the first semester of 1925-26. Dr. W. D. Reeve has been appointed associate professor of mathematics at Teachers College.

Professor F. B. Wiley, of Denison University, served as acting head of the department of mathematics at Roberts College, Constantinople, for the academic year 1924-25.

Assistant Professor L. T. Wilson, of the United States Naval Academy, has been promoted to an associate professorship.

Professor Alexander Ziwet, of the University of Michigan, has retired from active teaching.

The following appointments to instructorships are announced:

Cornell University, Messrs. R. P. Agnew, H. I. Lane, J. Wolfender, and Miss F. Farnum.

Harvard University, Dr. H. W. Brinkmann, Mr. H. L. Garabedian, Dr. L. M. Graves (first semester), Mr. B. O. Koopman (Peirce instructor), Mr. H. B. Hammatt, Mr. W. A. Jenkins, Mr. Malcolm MacClaren, Mr. Morris Marden, Mr. F. W. Perkins, Mr. H. P. Stabler, Mr. D. E. Whitford.

The death is announced of Professor C. Guichard, of the University of Paris.

Professor P. A. Nekrassoff, of the University of Moscow, died December 20, 1924, at the age of seventy-three.

Mr. W. W. Rouse Ball, fellow and formerly tutor of Trinity College, Cambridge, died April 4, 1925, at the age of seventy-four.

Dr. Oliver Heaviside, known for his work in electromagnetism, died February 3, 1925, in his seventy-fifth year.

Professor P. A. Lambert, of Lehigh University, died February 15, 1925, at the age of sixty-three. Professor Lambert had been a member of the American Mathematical Society since 1893.

Dr. D. J. McAdam, professor emeritus of mathematics at Washington and Jefferson College, died February 15, 1925, at the age of eighty-two.

Shirely E. Roberts, formerly professor of mathematics at the University of the Philippines, died March 9, 1925, at the age of forty-seven.

Professor C. S. Sperry, of the University of Colorado, died in July, 1924. Professor Sperry had been a member of the American Mathematical Society since 1921.