NOTES

A new journal of interest to workers in applied mathematics, Ingenieur-Archiv, has been started, under the editorship of R. Grammel, with the assistance of A. Betz, A. Hertwig, and K. von Sanden. It is published by Springer.

The American Statistical Association has begun publication of a new journal called The Annals of Mathematical Statistics. Professor H. C. Carver, of the University of Michigan, is editor.

The British Association for the Advancement of Science will meet at Bristol, September 3–10, 1930, when Sir Thomas Holland will be succeeded in the presidential chair by Professor F. O. Bower. Dr. F. E. Smith is president of Section A (mathematical and physical sciences).

The first Congress of Mathematicians of the Slavic Countries was held at Warsaw, September 23–27, 1929, under the presidency of Professor W. Sierpinski. There was an attendance of one hundred eighty persons, including representatives from Bulgaria, Czecho-Slovakia, Jugoslavia, and Poland; Russia was not represented, the Academy of Sciences of Leningrad having declined an invitation to take part. Eight general lectures and eighty shorter papers were presented.

The Accademia Pontificia dei Nuovi Lincei has awarded its prize for a critical study of the quantum theory as follows: one half to G. Wataghin of Turin, and one fourth each to P. Straneo, of Genoa, and A. Carrelli, of Naples.

The Academy of Sciences of Turin has awarded its Vallauri prize for the period 1923–26 jointly to Alessandro Marchetti, for his work as director of the Società Idrovolanti Alta Italia, and Professor Enrico Pistolesi, of the Engineering School of Pisa, for his work in aerodynamics.

The Franklin Institute has awarded a Franklin medal to Sir William Bragg, director of the Davy-Faraday Research Laboratory of the Royal Institution of Great Britain, in recognition of his contributions to the knowledge of atomic structure.

Dr. Irving Langmuir, of the General Electric Company, has been awarded the Willard Gibbs gold medal of the Chicago Section of the American Chemical Society "for fundamental work on atomic hydrogen, on surface relations, and electrical discharge phenomena, for contributions to various branches of physical chemistry, and for his presentation of a theory of atomic structure."

The Society of Arts and Sciences has awarded one of its gold medals to Professor G. N. Lewis, of the department of physical chemistry of the University of California. Professor T. von Kármán has received an honorary doctorate from the Berlin Technical School.

Professor Tullio Levi-Civita has been elected a corresponding member of the Prussian Academy of Sciences.

Professor C. V. Raman, of the University of Calcutta, has received an honorary doctorate from the University of Freiburg.

Mr. P. A. M. Dirac, of Cambridge, has been recommended by the Council of the Royal Society of London for election to membership in that Society.

Dr. L. Eckhart, of the Vienna Technical School, has been promoted to a professorship of descriptive geometry.

Dr. F. L. Krames, of the Vienna Technical School, has been appointed to an associate professorship of descriptive geometry at the German Technical School of Brünn.

E. Esclangon, director of the Paris Observatory, has been appointed professor of astronomy at the University of Paris, as successor to the late Professor H. Andoyer.

Professor Arnold Eucken, of the Breslau Technical School, has been appointed professor of physical chemistry at the University of Göttingen.

Professor Helmut Hasse, of the University of Halle, has been appointed professor of mathematics at the University of Marburg.

The Rockefeller Institute has given funds to endow a new Institute of Mathematics at the University of Göttingen. It will be directed by Professor R. Courant.

E. B. Schieldrop, of Drontheim, has been appointed professor of applied mathematics at the University of Oslo, as successor to the late Richard Birkeland.

Professor A. C. Banerji, of the department of mathematics in the University of Allahabad, has been promoted to the University chair of mathematics.

Dr. P. L. Srivastava has been promoted to a readership in mathematics in the University of Allahabad.

Dr. M. Fekete, of the University of Budapest, has been appointed to an associate professorship in the Einstein Institute at the University of Jerusalem.

The following have been promoted to full professorships in Italian universities: E. Fermi, to the chair of theoretical physics in the University of Rome; E. Persico, to the chair of theoretical physics in the University of Florence; R. Serini, to the chair of mathematical physics in the University of Pavia.

Professor G. Albanese, of the chair of projective and descriptive geometry at the University of Palermo, has been transferred to a professorship at the University of Pisa.

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Professor G. Giorgi, of the chair of mathematical physics at the University of Cagliari, has been transferred to a professorship at the University of Palermo.

Professor A. Tonolo, of the chair of the calculus at the University of Ferrara, has been transferred to a professorship at the University of Padua.

At Cambridge, Mr. W. R. Dean, of Trinity College, has been appointed university lecturer.

The following sixty-three doctorates with mathematics or mathematical physics as major subject were conferred during 1929 in universities in the United States and Canada; 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.

Nola L. Anderson, Missouri, June, astronomy, An extension of Maschke's symbolism.

G. A. Baker, Illinois, May, economics, Random sampling from non-homogeneous populations.

M. A. Basoco, California Institute of Technology, June, mathematical physics, Fourier expansions of doubly periodic functions of the third kind.

W. D. Baten, Michigan, June, Theorems concerning probability.

A. C. Berry, Harvard, June, Fourier representations.

H. R. Beveridge, Illinois, May, astronomy, An expansion problem connected with a system of partial differential equations.

O. K. Bower, Illinois, May, physics, Applications of an abstract existence theorem to both differential and difference equations.

A. B. Brown, Harvard, June, Relations between the critical points of a real analytic function of n independent variables.

O. E. Brown, Chicago, August, The equivalence of triples of bilinear forms.

F. H. J. Burkett, New York University, June, physics, Some properties of the sextic with a quadruple point.

R. V. Churchill, Michigan, June, On the geometry of the Riemann tensor.

W. M. Coates, Michigan, June, engineering mechanics, The state of stress in thin-walled pressure vessels.

C. J. Coe, Harvard, June, Exterior motion in the restricted problem of three bodies.

J. B. Coleman, California, August, Concerning the reducibility of the char acteristic equation of a ternary continued fraction.

A. J. Cook, Chicago, June, Pairs of rectilinear congruences with generators in one-to-one correspondence.

H. V. Craig, Wisconsin, October, On the simultaneous differential invariants of two functions with an application to the calculus of variations.

Mildred W. Dean, Johns Hopkins, February, Studies in inversive geometry with reference to a special set of six points.

L. A. V. DeCleene, Catholic, On triangles circumscribed about a conic and inscribed in a cubic curve.

H. P. Doole, Nebraska, June, physics, Certain multiple-parameter expansions.

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H. H. Downing, Chicago, December, Absolute minima for space problems of the calculus of variations in parametric form.

Nat Edmonson, Jr., Rice, June, Poisson's integral and plurisegments on the hypersphere.

P. D. Edwards, Indiana, June, astronomy, Functions possessing an addition theorem from standpoint of a functional equation given by Abel.

J. D. Elder, California Institute of Technology, June, mathematical physics, Arithmetized trigonometrical expansions of doubly periodic functions of the third kind.

H. T. Engstrom, Yale, June, On the common index divisors of an algebraic field.

H. P. Evans, Wisconsin, June, The two dimensional boundary value problem for the transmission of alternating currents through a heterogeneous earth.

E. C. Goldsworthy, California, May, physics, *Curves autopolar with respect* to a cyclic set of conics.

Deborah M. Hickey, Rice, June, A three dimensional treatment of groups of linear transformations.

J. J. L. Hinricksen, Harvard, June, The problem of n bodies.

T. J. Jaramillo, Chicago, March, A generalization of the energy function of elasticity theory.

C. I. Lubin, Harvard, June, Singular points of second order systems of real differential equations.

Dorothy McCoy, Iowa, July, psychology, The complete existential theory of eight fundamental properties of topological spaces.

N. H. McCoy, Iowa, June, physics, Commutation formulas in the algebra of quantum mechanics.

Sister Marie Cecilia Mangold, Catholic, June, education, On the loci of vertices of singly infinite systems of triangles circumscribed about a fixed conic.

R. H. Marquis, Chicago, June, A comparison of existing theories of algebraic numbers, and the isolation of an abstract theory.

H. A. Meyer, Iowa, June, physics, On certain inequalities with applications in actuarial science.

E. L. Mickelson, Minnesota, July, physics, On the approximate representation of a function of two variables.

E. R. C. Miles, Rice, June, (1) Boundary value problems for potentials of a single layer in the plane. (2) Potentials of general masses in single and double layers. The relative boundary value problems.

H. J. Miles, California, May, astronomy, On a generalization of Plücker's surface.

A. K. Mitchell, Johns Hopkins, June, The derivation of tensors from tensor functions.

W. K. Morrill, Johns Hopkins, June, A problem of ambiency.

Max Morris, Chicago, June, Nets of collineations in n-space.

E. D. Mouzon, Illinois, January, economics, *Equi-modal frequency distribu*tions.

C. F. Muckenhaupt, Massachusetts Institute of Technology, June, physics, Almost periodic functions and vibrating systems.

C. O. Oakley, Illinois, May, physics, Differential equations containing absolute values of derivatives.

Gordon Pall, Chicago, June, Problems in additive theory of numbers.

G. A. Parkinson, Wisconsin, August, Pairs of curves in a S_n . A theory of parallelism in sub-spaces.

F. D. Perez, Chicago, August, The Hilbert-Schmidt theory of linear integral equations in general analysis for quaternionic-valued functions.

J. C. Polly, Cornell, June, physics, Rational surfaces mappable by C_{3n} : $8A^nB^{n-1}$.

Bryan Priestman, McGill, October, major in physics, minor in mathematics, *Propagation of quanta*.

W. T. Reid, Texas, June, Properties of solutions of an infinite system of ordinary linear differential equations of the first order with ordinary boundary conditions.

J. H. Roberts, Texas, June, Concerning non-dense plane continua.

Robin Robinson, Harvard, February, On the differential geometry of surfaces in non-euclidean space.

E. B. Roessler, California, May, architecture, A certain family of autopolar sextics.

Samuel Silberfarb, Chicago, August, Representation by indefinite ternary quadratic forms.

C. A. Spicer, Johns Hopkins, June, P-curves of Cremona transformations.

L. H. Swinford, California, May, Greek, On rational autopolar quintic curves.

P. M. Swingle, Michigan, June, A certain type of continuous curve and related point set.

S. C. Wang, Columbia, major in physics, The problem of the normal hydrogen molecule in the new quantum mechanics.

J. H. Webb, Wisconsin, June, major in physics, minor in mathematics, Potential distribution due to a buried sphere under the influence of a point electrode.

Rose A. Whelan, Brown, June, Approximate solutions of certain general types of boundary value problems from the standpoint of integral equations.

F. G. Williams, Cornell, June, physics, Families of plane involutions of genus 2 or 3.

Kathryn Wyant, Missouri, August, astronomy, The ideals in the algebra of generalized quaternions over the field of rational numbers.

Leo Zippin, Pennsylvania, June, A study of continuous curves and their relation to the Janiszewski-Mullikin theorem.

Professor R. W. Babcock, head of the department of mathematics at DePauw University, has been appointed dean of the division of general science of the Kansas State Agricultural College.

Assistant Professor F. R. Bamforth, of Cornell University, has been appointed to an assistant professorship of mathematics at the Ohio State University.

Professor J. W. Barker, of Lehigh University, has been appointed dean of the faculty of engineering of Columbia University.

Dr. O. E. Brown has been appointed associate professor of mathematics at Lawrence College.

Professor K. T. Compton, of the department of physics of Princeton University, has been appointed president of the Massachusetts Institute of Technology.

Dr. E. R. van Kampen, who is Professor Schouten's assistant at the University of Delft, has been appointed associate in mathematics at Johns Hopkins University.

Professor A. E. Kennelly, of the department of electrical engineering of Harvard University, retires at the close of the present academic year with the title of professor emeritus.

Dr. Lincoln LaPaz, of the University of Chicago, has been appointed assistant professor of mathematics at the Ohio State University.

Associate Professor J. H. Neelley has been promoted to a professorship of mathematics at the Carnegie Institute of Technology.

Dr. L. W. Nordheim, of the University of Göttingen, has been appointed visiting professor of theoretical physics at the Ohio State University for the spring quarter.

Dr. Tibor Rado, of the University of Szeged, Hungary, has been appointed professor of mathematics at the Ohio State University. Dr. Rado was visiting lecturer at Harvard University during the first semester of this year, and is lecturing at Rice Institute during the present semester.

Dr. T. J. J. See, who, as captain in the Navy, has been in charge of the naval chronometer and time station at Mare Island, Calif., for the last twentyseven years, has retired from active service.

Professor H. W. Tyler, for many years professor of mathematics and head of the department of mathematics at the Massachusetts Institute of Technology, will retire at the end of the present academic year. He will continue to act as General Secretary of the American Association of University Professors, and will be also a consultant to the Library of Congress on scientific literature. Professor F. S. Woods has been appointed as head of the department of mathematics.

Professor C. A. Wheeler, of the Connecticut Agricultural College, has retired.

Dr. A. Wintner, who has been Professor Lichtenstein's assistant at the University of Leipzig, and is at present a Rockefeller Fellow at Rome, has been appointed associate in mathematics at the Johns Hopkins University.

Professor G. S. Chowla, of the Government College, Lahore, died in December, 1929.

Professor Onorato Niccoletti, of the University of Pisa, died December 31, 1929, at the age of fifty-nine.

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Mr. F. P. Ramsey, lecturer in mathematics at King's College, Cambridge, died January 19, 1930, at the age of twenty-six.

Carl Schoch, known as a student of ancient astronomical records, died November 19, 1929.

Professor W. O. Beal, of the department of astronomy of the University of Minnesota, died February 15, 1930, at the age of fifty-six. Professor Beal had been a member of the American Mathematical Society since 1914.

Professor J. B. Johnson, head of the department of mathematics at Baylor University, died December 18, 1929. Professor Johnson was a member of the American Mathematical Society.

Dr. Christine Ladd-Franklin, lecturer in psychology and logic at Columbia University, died March 5, 1930, in her eighty-third year. Mrs. Ladd-Franklin held a doctorate in mathematics from Johns Hopkins University.

Professor G. W. McCoard, of the department of mathematics at the Ohio State University, died March 19, 1930, at the age of eighty.

Mr. R. E. Peterson, of Pennsylvania State College, died in the summer of 1929. Mr. Peterson was a member of the American Mathematical Society.