

NOTES

An Institute for Teachers of Mathematics will be held on the Wellesley College Campus August 23-30, 1949. This Institute is sponsored by the Association of Teachers of Mathematics in New England and is planned to serve teachers of mathematics in elementary schools, secondary schools, and colleges.

Dr. Harish-Chandra of the Institute for Advanced Study and Dr. J. A. Jenkins of Harvard University have been awarded Frank B. Jewett Fellowships by the American Telephone and Telegraph Company.

Professor P. H. Linehan of City College, New York City, has retired with the title emeritus.

Professor Enrico Bompiani of the University of Rome has been appointed to a professorship at the University of Pittsburgh. He will spend half of each academic year at the University of Rome.

Professor Lamberto Cesari of the University of Bologna has been appointed to a visiting professorship at the University of California.

Professor S. S. Chern of the Institute of Mathematics of the Chinese Academy is presently a member of the Institute for Advanced Study.

Professor D. D. Kosambi of Tata Institute of Fundamental Research, Bombay, India, has been appointed to a visiting professorship at the University of Chicago.

Professor T. G. Room of the University of Sydney has been appointed to a visiting professorship at the University of Tennessee.

Professor Enrico Volterra of the University of Rome has been appointed to an associate professorship of mechanics at Illinois Institute of Technology.

Dr. F. L. Alt of the Ballistic Research Laboratories, Aberdeen Proving Ground, has accepted a position as assistant and acting chief of the Computation Laboratory, National Bureau of Standards.

Mr. C. W. Cassel of the University of Dayton has accepted a position as chief of the Branch of Measurement and Analysis, Engineering Division, Clinton County Air Force Base, Wilmington, Ohio.

Dr. H. E. Ellingson of Rosemount Research Center, University of Minnesota, has accepted a position as Mathematician with the Naval Ordnance Laboratory, Washington, D. C.

Mr. L. N. Enequist of the Bendix Aviation Corporation has accepted a position as mathematician with the Ballistic Research Laboratories, Aberdeen Proving Ground.

Dr. H. G. Landau of the Ballistic Research Laboratories, Aberdeen

Proving Ground, has accepted a position as research associate with the Committee on Mathematical Biology, University of Chicago.

Mr. George Lausch of Cornell University has been appointed to an assistant professorship at the University of Pittsburgh.

Dr. R. K. Luneburg of the Institute for Mathematics and Mechanics of New York University has been appointed to an associate professorship at the University of Southern California.

Mr. E. W. Marchand of the University of Rochester has accepted a position as physicist with the Eastman Kodak Company, Rochester, New York.

Professor W. E. Milne of Oregon State College is on leave at the Institute for Numerical Analysis, National Bureau of Standards.

Associate Professor E. D. Rainville of the University of Michigan is on leave at the California Institute of Technology.

Mr. L. L. Rauch of Princeton University has been appointed to an assistant professorship at the University of Michigan.

Assistant Professor W. P. Reid of Purdue University has been appointed to an assistant professorship at the Air Forces Institute of Technology, Wright Field, Ohio.

Associate Professor E. K. Ritter of the U. S. Naval Postgraduate School has accepted a position as supervisor, Performance Analysis Group, Aeronautical Research Center, University of Michigan.

Mr. J. H. Rosenbloom of Frankford Arsenal, Philadelphia, has accepted a position as physicist with the Naval Ordnance Laboratory, White Oak, Silver Spring, Maryland.

Mr. J. W. Wray of the University of Illinois has been appointed to an acting assistant professorship at State Teachers College, New Paltz, New York.

The following promotions are announced:

J. G. Herriot, Stanford University, to an associate professorship.

Samuel Karlin, California Institute of Technology, to an assistant professorship.

Z. I. Mosesson, Prudential Insurance Company of America, to senior actuarial assistant.

The following appointments to instructorships are announced:

Illinois Institute of Technology, Mr. B. A. Galler; University of California, Mr. J. L. Hodges; Iowa State College of Agriculture and Mechanic Arts, Mr. W. C. Hoffman.

Professor Torsten Carleman of the University of Stockholm died on January 11, 1949 at the age of fifty-six years.

Dean Emeritus T. M. Focke of Case Institute of Technology died

March 2, 1949 at the age of seventy-eight years. He had been a member of the Society for thirty-five years.

Dr. H. V. Gummere died on February 9, 1949 at the age of eighty years. He had been a member of the Society for fifty-five years.

Professor Emeritus W. S. Hall of Lafayette College died December 17, 1948 at the age of eighty-seven years.

Professor Emeritus W. D. MacMillan of the University of Chicago died November 14, 1948 at the age of seventy-seven years. He had been a member of the Society for thirty-four years.

Mr. J. S. Mikesh of the Lawrenceville School, Lawrenceville, New Jersey, died January 29, 1949 at the age of sixty-seven years.

Professor Maximilian Philip of City College, New York City, died January 17, 1949 at the age of seventy-one years.

Mr. H. I. Treiber of Watson Laboratories, Columbia University, died on February 27, 1949 at the age of twenty-seven years.

Professor John Williamson of Queens College died on February 9, 1949 at the age of forty-seven years. He had been a member of the Society for twenty-three years.

The following one hundred and seventeen doctorates, with mathematics, mathematical physics, or statistics as a major subject, were conferred during 1948 in universities in the United States and Canada. The university, month in which degree was conferred, minor subject (other than mathematics) and the title of the dissertation are given in each case if available.

Milton Abramowitz, New York, February, minor in aeronautical engineering, *On the backflow of a viscous fluid in a diverging channel.*

N. B. Allison, Kentucky, June, *On ideals in generalized quaternion algebras and representation of integers by ternary quadratic forms.*

R. A. Alpher, George Washington, May, *On the origin and relative abundance of the elements.*

R. D. Anderson, Texas, June, *Concerning upper semi-continuous collections of continua.*

M. M. Andrew, Massachusetts Institute of Technology, June, minor in physics, *Application of Lagrangian procedures to an electromagnetic system consisting of a wave guide, an orifice, and a cavity.*

H. I. Ansoff, Brown, October, *The forming of a plastic sheet between fixed cylindrical guides with coulomb friction.*

T. M. Apostol, California, September, *A study of Dedekind sums and their generalization.*

R. W. Ball, Illinois, June, minor in philosophy, *Dualities of finite projective planes.*

J. W. Beach, Iowa State, June, minors in physics and chemical

engineering, *Flow of viscous fluid between slowly rotating cylinders.*

T. A. Bickerstaff, Michigan, February, *Certain order probabilities in non-parametric sampling.*

B. P. Bogert, Massachusetts Institute of Technology, June, minor in electrical engineering, *On the separability of one variable in certain linear partial differential equations.*

Frances R. Brand, Brown, October, *An extension of the Prandtl-Reuss theory of plastic flow.*

N. A. Brigham, Pennsylvania, June, *On a certain weighted partition function.*

F. E. Browder, Princeton, June, *The topological fixed point theory and its application in functional analysis.*

L. J. Burton, Harvard, June, *On the complex elliptic geometry of Hilbert space.*

R. G. Calloway, Catholic University, October, minors in physics and chemistry, *The reality of the triangles in- and circumscribed to the plane rational quartic with one cusp and two nodes.*

Herman Chernoff, Brown, June, *Studentization in testing of hypotheses.*

Louise H. Chin, California, June, *Distributive and modular laws in relation algebras.*

F. E. Clark, Duke, June, minors in philosophy and physics, *Muirhead's theorem and its extension.*

E. A. Coddington, Johns Hopkins, June, *On the equations governing the stability of the laminar boundary layer in a compressible fluid.*

Harvey Cohn, Harvard, June, *Diophantine aspects of Poincaré theta functions.*

L. A. Colquitt, Ohio State, December, *On paths of minimum flight time.*

Damian Connelly, Catholic University, June, minors in physics and education, *An investigation of the conditions for reality of certain characteristics of the bicircular cuspidal quartic curves.*

J. C. Currie, Louisiana, *The field of values of a matrix.*

D. B. Dekker, California, September, *Hypergeodesic curvature and torsion.*

Yael N. Dowker, Radcliffe, March, *The ergodic theorems and invariant measure.*

James Dugundji, Massachusetts Institute of Technology, February, minor in electrical engineering, *Fundamental groups for spaces which are not LC^1 .*

Helen M. Elliott, Radcliffe, June, *On the degree of approximation to harmonic functions by harmonic polynomials.*

H. W. Eves, Oregon State, June, minor in physics, *A class of projective space curves.*

Walter Federer, Iowa State, June, minor in plant breeding, *Evaluation of variance components from a group of experiments with multiple correlation.*

Evelyn Fix, California, June, *Distributions which lead to linear regressions.*

E. E. Floyd, Virginia, June, *The extension of homeomorphisms.*

M. K. Fort, Virginia, June, *A unification of the theory of semi-continuous functions.*

E. H. Gallagher, Cincinnati, June, *Borel summability of Fourier series of continuous functions.*

David Gans, New York, June, *An approach to elliptic geometry using translations.*

P. R. Garabedian, Harvard, June, *Schwarz's Lemma and the Szegő kernel function.*

B. R. Gelbaum, Princeton, June, *Expansions in Banach spaces.*

J. B. Giever, Massachusetts Institute of Technology, June, minor in physics, *On the equivalence of two continuous homology theories.*

E. N. Gilbert, Massachusetts Institute of Technology, June, minor in physics, *Asymptotic solution of relaxation oscillation problems.*

Oscar Goldman, Princeton, June, *On the theory of algebraic surfaces.*

R. D. Gordon, Indiana, October, minor in physics, *On the differential equation of the streamfunction for plane compressible flows.*

Arthur Grad, Stanford, June, *The region of values of the derivative of a schlicht function.*

Harold Grad, New York, June, minor in physics, *Approximation to the Boltzmann equation by moments.*

R. E. Graves, Minnesota, August, *Integral representations of linear and weak linear functionals defined over the Wiener space C .*

N. G. Gunderson, Cornell, September, minor in physics, *Derivation of criteria for the first case of Fermat's last theorem and the combination of these criteria to produce a new lower bound for the exponent.*

John Gurland, California, September, I. *Asymptotically normal estimates.* II. *Inversion formulae for the distribution of ratios.*

S. W. Hahn, Duke, June, minor in philosophy, *Universal spaces under strong homeomorphisms.*

Frank Harary, California, September, *The structure of Boolean-like rings.*

I. N. Herstein, Indiana, June, minor in physics, *Divisor algebras.*

M. O. Hizon, Michigan, February, *Actuarial study of Philippines government service insurance system.*

J. L. Hodges, California, September, *Studies in optimum statistical procedures*. I. *Initial sample size in the Stein procedure*. II. *Stringency in acceptance sampling*.

N. C. Hunsaker, Rice, June, *Extremal curves for the modulus of an analytic function*.

G. A. Hunt, Princeton, April, *On stationary stochastic processes*.

Richard Ingram, Johns Hopkins, June, *The characters of certain classes of the symmetric group*.

A. V. Jacobson, Michigan, February, *A generalized convolution for the finite Fourier transform*.

S. J. Jasper, Kentucky, August, *The homogeneity problem in the calculus of variations for a parametric form*.

J. A. Jenkins, Harvard, June, *Some problems in conformal mapping*.

P. S. Jones, Michigan, February, *The development of the mathematical theory of linear perspective and its connections with projective and descriptive geometry with especial emphasis on the contributions of Brook Taylor*.

M. L. Juncosa, Cornell, September, minor in physics, *On the distribution of the minimum of a sequence of mutually independent random variables*.

S. N. Karp, Brown, June, *On some problems in compressible flutter theory*.

J. B. Keller, New York, June, minor in physics, *Reflection and transmission of electro-magnetic waves by thin curved shells*.

J. B. Kelly, Massachusetts Institute of Technology, June, minor in physics, *On certain classes of algebraic integers*.

L. M. Kelly, Missouri, June, *New metric-theoretic properties of elliptic space*.

W. J. Klimczak, Yale, June, *Contributions of the theory of differential operators of indefinite order*.

R. G. Langebartel, Illinois, October, minor in astronomy, *An investigation of the convolutions of kernels of the type $x^\lambda - t^\lambda$ by a transform method and by fractional integration by parts*.

C. E. Langenhop, Iowa State, June, minors in physics and physical chemistry, *Properties of kernels of integral equations whose iterates satisfy linear relations*.

J. H. Laning, Massachusetts Institute of Technology, February, minor in physics, *Mathematical theory of lubrication-type flow*.

Harry Lass, California Institute of Technology, June, minor in physics, *The differential geometry of a space with a two-point differential metric*.

Mary A. Lee, Cornell, June, minor in physics, *Summability of di-*

agonal series formed from the terms of double series.

M. E. Levenson, New York, February, minor in physics, *Harmonic and subharmonic response for the Duffing equations $\ddot{x} + \alpha x + \beta x^3 = F \cos \omega t$.*

F. W. Light, Johns Hopkins, June, *A mathematical treatment of the two-dimensional motion of a perfect fluid.*

C. T. Loo, Chicago, June, *A note on the properties of Fourier coefficients.*

C. J. McNamara, Catholic University, June, minors in physics and physical chemistry, *The reality of the double tangents of the rational bicircular symmetric quartic.*

Clifford Maloney, Iowa State, June, minor in genetics, *Stratification in survey sampling.*

C. G. Maple, Carnegie Institute of Technology, June, *The Dirichlet problem: bounds at a point for the solution and its derivative.*

L. T. Mathews, St. Louis, June, minor in physics, *The study of constructive methods in the theory of algebraic equations.*

F. I. Mautner, Princeton, June, *Unitary representations of infinite groups.*

T. F. Morris, Toronto, June, *Quantum electrodynamics.*

G. D. Mostow, Harvard, March, *The extensibility of local Lie groups of transformations and groups on surfaces.*

D. N. Nanda, North Carolina, June, *Some contributions to the theory of multi-variate analysis.*

S. F. Neustadter, California, September, *Multiple-valued harmonic functions with circle as branch-curve.*

J. D. Newburgh, California at Los Angeles, June, *The variation of operator spectra.*

G. E. Nicholson, North Carolina, June, *The application of a regression equation to a new samples*

Ilse L. Novak, Radcliffe June, *On the consistency of Goedel's axioms for class and set theory relative to a weaker set of axioms.*

T. E. Oberbeck, California Institute of Technology, June, minor in physics, *Trigonometric expansions of doubly periodic functions of the second kind in any number of variables.*

G. K. Overholtzer, Indiana, June, minor in astronomy, *Some functions in elementary p -adic analysis.*

C. R. Putnam, Johns Hopkins, June, *An application of spectral theory to a singular calculus of variations problem.*

R. M. Redheffer, Massachusetts Institute of Technology, June, minor in electrical engineering, *Separation of Laplace's equation.*

O. W. Rechard, Wisconsin, June, *Some topics in theory of measure*

spaces.

T. D. Reynolds, Duke, June, minor in physics, *Analytic solutions of integral equations with non-analytic kernels.*

Julia B. Robinson, California, June, *Definability and decision problems in arithmetic.*

C. L. Roney, Catholic University, June, minors in physics and chemistry, *Triangles in- and circumscribed to a rational quartic with simple symmetry.*

Hermann Rubin, Chicago, March, minor in physics, *Systems of linear stochastic equations.*

Herbert Ryser, Wisconsin, June, *Rational vector spaces.*

C. W. Saalfrank, Pennsylvania, February, *Retraction properties for normal Hausdorff spaces.*

F. J. Scheid, Massachusetts Institute of Technology, June, minor in physics, *On the asymptotic shape of the cavity behind an axially symmetric nose moving through an ideal fluid.*

Harold Shniad, California at Los Angeles, June, *Convexity properties of means of moduli of analytic functions.*

Edward Silverman, California, June, *Definitions of Lebesgue area for surfaces in metric spaces.*

W. H. Spragens, Cincinnati, June, *On the absolute Cesaro summability of double Fourier series.*

R. A. Staal, Toronto, November, *Star diagrams and modular properties of irreducible representations of the symmetric group.*

R. G. Stanton, Toronto, June, *On the Mathieu groups M_{23} .*

Robert Steinberg, Toronto, June, *Representations of the linear fractional groups.*

Ernst Straus, Columbia, June, *Some results in the generalized theory of relativity.*

G. L. Tiller, Kentucky, June, *The existence of a two dimensional potential flow with finite wake past a strictly convex profile symmetric with respect to the flow at infinity.*

C. J. Titus, Syracuse, June, *A topological characterization of a class of affine transformations.*

Deonise Trifan, Brown, October, *A comparison between two theories of plasticity.*

W. R. Utz, Virginia, June, *Almost periodic geodesics on n -dimensional manifolds.*

A. H. Van Tuyl, Stanford, June, minor in chemistry, *The distribution of electricity on two neighboring charged spheres in the presence of an outside point charge.*

M. L. Vest, Michigan, February, *Birational space transformation*

associated with congruence of lines.

Sylvan Wallach, Johns Hopkins, June, *Location of spectra of wave equations.*

Jean B. Walton, Pennsylvania, June, *Theta series in the Gaussian field.*

Herschel Weil, Brown, October, *On the extrusion of a very viscous liquid.*

J. G. Wendel, California Institute of Technology, June, minor in physics *A degenerate van der Pol equation.*

D. R. Whitney, Ohio State, August, *A comparison of the power of non-parametric tests and tests based on the normal distribution under non-normal alternatives.*

B. R. Wicker, Iowa, June, *A differential equation of the second order and first degree containing two parameters.*

J. H. Wolfe, Harvard, June, *Tensor fields associated with Lipschitz cochains.*

M. A. Woodbury, Michigan, June, *Probability and expected values.*

The following two doctorates were conferred in 1947, but were not included in the list in the preceding volume of this Bulletin (vol. 54, pp. 496–501).

M. Francis B. Stauder, Notre Dame, June, *Studies on projective generalizations of metric geometry.*

M. Petronia Van Straten, Notre Dame, June, *The topology of the configurations of Desargues and Pappus.*