

NOTES

The Oak Ridge Summer Symposium for 1951 will be held from August 27 to September 6 and will be devoted to *Nuclear engineering*.

Assistant Professor W. E. Barnes of the College of William and Mary is on leave of absence and has accepted a position as mathematician at the U. S. Naval Proving Ground, Dahlgren, Virginia.

Professor F. W. Beal of the University of Pennsylvania has retired with the title emeritus.

Associate Professor Lipman Bers of Syracuse University is on leave of absence and has been appointed to a visiting professorship at the Institute of Mathematics and Mechanics, New York University, for the spring semester of 1951.

Mr. L. F. Boron of the University of Kentucky has accepted a position as mathematician in the Bureau of Ordnance, U. S. Navy Department, Washington, D. C.

Dr. J. M. Danskin of the Office of Naval Operations has accepted a position as mathematician with the Rand Corporation, Santa Monica, California.

Assistant Professor H. F. DeFrancesco of the College of Charleston has accepted a position as analyst with the U. S. Department of Defense, Washington, D. C.

Mr. C. E. Diesen has accepted a position as dynamics engineer with the Bell Aircraft Company, Buffalo, New York.

Professor J. A. Dieudonné of the University of Nancy has been appointed to a visiting professorship at Johns Hopkins University for the spring semester.

Dr. Aryeh Dvoretzky of Hebrew University has been appointed to a visiting professorship at Columbia University.

Assistant Professor W. L. Fields of the University of Louisville has been appointed to an associate professorship at Hampton Institute.

Mr. D. R. Fulkerson has accepted a position with the Rand Corporation, Santa Monica, California.

Mr. G. H. Gleissner of Columbia University has accepted a position as mathematician at the U. S. Naval Proving Ground, Dahlgren, Virginia.

Mr. G. E. Gourrich has accepted a position as research engineer with Northrop Aircraft, Inc., Hawthorne, California.

Mr. J. B. Kelly has been appointed a member of the Institute for Advanced Study.

Miss Louise M. Knifley of Marshall College has been appointed to an assistant professorship at Grand Canyon College.

Dr. Kunihiro Kodaira of the Institute for Advanced Study has been appointed to a visiting associate professorship at Johns Hopkins University.

Assistant Professor F. W. Light of Johns Hopkins University has accepted a position in the Biophysics Section, Medical Division, at the Army Chemical Center, Maryland.

Mr. E. E. Osborne has accepted a position as mathematician with the Institute for Numerical Analysis.

Dr. Clarence Ross of the Naval Proving Ground, Dahlgren, Virginia has accepted a position as mathematician at the Office of Air Research, Wright-Patterson Air Force Base, Dayton, Ohio.

Mr. Herbert Ruderfer has accepted a position as mathematician with the Applied Physics Laboratory, Johns Hopkins University, Silver Spring, Maryland.

Mr. E. L. Schlain has accepted a position as mathematician with the Department of the Army, Washington, D. C.

Mr. L. R. Schlauch has accepted a position as analyst with the Department of Defense, Armed Forces Security Agency, Washington, D. C.

Mr. M. H. Slud has accepted a position as mathematician with the Cornell Aeronautical Laboratory, Buffalo, New York.

Professor B. L. van der Waerden of the University of Amsterdam has been appointed to a professorship at the University of Zurich.

Dr. W. R. Wasow of the National Bureau of Standards, University of California, is on leave of absence and has been appointed a visiting lecturer at the Massachusetts Institute of Technology.

Professor J. W. T. Youngs of Indiana University is on leave of absence and has accepted a position as research consultant for the Atomic Energy Commission at Sandia Corporation, Albuquerque, New Mexico.

Mr. Arthur Zeichner of Oklahoma Agricultural and Mechanical College has accepted a position as associate mathematician at the Reeves Instrument Corporation, New York, New York.

The following promotions have been announced:

W. B. Caton, DePaul University, to an associate professorship.

W. H. Fagerstrom, City College, New York, New York, to an associate professorship.

S. T. Hu, Tulane University of Louisiana, to an associate professorship.

W. J. Wells, State Teachers College, Mankato, Minnesota, to an assistant professorship.

The following appointments to instructorships are announced: DePaul University: Mr. E. P. Merkes; Milwaukee School of Engineering: Mr. C. W. Larson; Tufts College: Mr. Harold Weintraub.

Dr. Daniel Buchanan of the University of British Columbia died on December 1, 1950 at the age of seventy years. He had been a member of the Society for forty years.

Associate Professor Emeritus Otto Dunkel of Washington University died on January 15, 1951 at the age of eighty-two years. He had been a member of the Society for thirty-eight years.

Sister Edward Joseph Hackett of Saint Mary's College, Notre Dame, Indiana, died in November 1950 at the age of fifty years.

Professor G. A. Miller of the University of Illinois died on February 10, 1951 at the age of eighty-seven years. He had been a member of the Society for fifty-one years.

Professor Emeritus W. H. Roever of Washington University died on January 31, 1951 at the age of seventy-six years. He had been a member of the Society for thirty-eight years.

Correction: The announcement of the First National Congress of Applied Mechanics which appeared in the Bulletin, vol. 57 (1951) p. 99, is in error in stating that the American Mathematical Society is a sponsor. The second sentence of the announcement should have read "The U. S. National Committee on Theoretical and Applied Mechanics, on which the American Mathematical Society is represented, is a sponsor."

The following one hundred and fifty-four doctorates, with mathematics, mathematical physics, or statistics as a major subject, were conferred during 1950 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.

L. U. Albers, Michigan, June, *An application of the Leray-Schauder method to quasi-linear partial differential equations of parabolic type.*

J. J. Andrews, St. Louis, June, *Admissibility theory applied to time series with variable probability.*

M. G. Arsove, Brown, June, *Functions representable as differences of subharmonic functions.*

D. F. Atkins, Kentucky, June, *On pseudo-doubly periodic functions.*

R. G. Ayoub, Illinois, June, minor in physics, *Extensions of the Waring-Siegel theorem in algebraic fields.*

R. R. Bahadur, North Carolina, June, *On a class of decision problems in the theory of R populations.*

Gerald Berman, Toronto, June, *Finite projective geometries.*

C. R. Blyth, California, June, I. *Contribution to the statistical theory of the Geiger-Müller counter.* II. *On minimax statistical decision procedures and their admissibility.*

J. E. Brock, Minnesota, June, *Generalized Blaschke products.*

Eleazer Bromberg, New York, June, *Non-linear bending of a circular plate under normal pressure.*

Marjorie L. Browne, Michigan, February, *Studies of one-parameter subgroups of certain topological and matrix groups.*

Bernard Budiansky, Brown, October, *Fundamental theorems and consequences of the slip theory of plasticity.*

K. A. Bush, North Carolina, August, minor in economics, *Orthogonal arrays.*

A. P. Calderón, Chicago, December, I. *On the ergodic theorems.* II. *On the behavior of harmonic functions on the boundary.* III. *On the theorem of Marcenkiewicz and Zygmund.*

R. L. Calvert, Illinois, October, minor in astronomy, *An analysis of galactic structure in the direction of Aquila.*

R. E. Chamberlin, Harvard, June, *On the mapping of a 4-complex into certain simply connected spaces.*

K. T. Chen, Columbia, June, *Integration in free groups.*

P. P. Chen, Brown, October, *The panel matrix method for analyzing plane structures.*

J. T. Chu, Iowa State, December, minor in physics, *Generalized Hermitean operators in Hilbert space.*

J. H. Chung, Toronto, June, *Modular representations of the symmetric group.*

H. G. Cohen, Brown, October, *Subharmonic synchronization for the forced van der Pol equation.*

H. D. Colson, Minnesota, March, minor in physics, *An existence theorem for a generalized Riemann-Stieltjes integral.*

George Copp, Texas, June, *Some convergence regions for a continued fraction.*

J. B. Crabtree, Harvard, June, *Dual rings and derivations.*

W. S. H. Crawford, Minnesota, July, minor in physics, *The evaluation of a certain class of Wiener integrals.*

Helen F. Cullen, Michigan, February, *A set of parabolic regular curve families filling the plane and certain related Riemann surfaces.*

Felice H. Davidson, Michigan, February, *Algebras with radical; an investigation of the class QF1-3.*

H. C. Davis, Harvard, June, *Lattices and model operators*.

M. D. Davis, Princeton, June, *On the theory of recursive unsolvability*.

J. C. E. Dekker, Syracuse, September, *The constructivity of maximal ideals in Boolean algebras*.

J. E. Denby-Wilkes, California Institute of Technology, June, minor in aeronautics, *Structure of commutative normed rings*.

Allen Devinatz, Harvard, June, *Transformations in reproducing kernel spaces*.

N. J. Divinsky, Chicago, June, *Power-associativity and crossed extension algebras*.

W. L. Doyle, California Institute of Technology, June, minor in physics, *An arithmetical theorem for partially ordered sets*.

H. A. Dye, Chicago, September, *Radon-Nikodým theorems for operator algebras*.

Franz Edelman, Brown, June, *On the coincidence of plasticity solutions obtained with incremental and deformation theories*.

Joanne Elliott, Cornell, June, *On some singular equations of the Cauchy type*.

D. O. Ellis, Missouri, June, *On distance geometries of algebraic structures*.

E. S. Elyash, Cornell, June, minor in physical chemistry, *Several limiting laws of the Kolmogorov-Smirnov type*.

W. B. Evans, Illinois, February, *Uniqueness properties of general monogenic functions*.

Chester Feldman, Chicago, September, *Real Banach algebras*.

J. C. Flack, Kentucky, August, *On reducible plane algebraic curves*.

L. E. Fuller, Wisconsin, June, *The Hermite canonical form for a matrix with elements in the ring of integers modulo m* .

L. M. Fulton, Duke, June, minor in physics, *Decompositions induced under finite-to-one closed mappings*.

J. R. Garrett, Duke, June, minor in philosophy, *Normal equations and resolvents in fields of characteristic p* .

Samuel Goldberg, Cornell, September, minor in genetics, *On a singular diffusion equation*.

J. K. Goldhaber, Wisconsin, June, *Conditions ordering the characteristic roots of matrices*.

N. A. Goldsmith, Illinois, June, minor in education, *Differential invariants of ruled surfaces*.

M. M. Gordon, Washington University, June, *Nucleon-deuteron scattering*.

Daniel Gorenstein, Harvard, June, *An arithmetic theory of adjoint plane curves.*

R. N. Goss, Iowa State, March, minor in mathematical physics, *Center of flexure of beams of triangular cross section.*

L. C. Graue, Indiana, June, minor in physics, I. *A necessary and sufficient condition that a curve lie on a quadric surface.* II. *A necessary condition that a curve lie on a hyperquadric.*

Emil Grosswald, Pennsylvania, February, *On the structure of some subgroups of the modular group.*

N. B. Haaser, Brown, October, *The viscous flow past a flat plate.*

Violet G. Hachmeister, Wisconsin, June, *A study of the parastrophic matrices of a group.*

Max Halperin, North Carolina, August, *Estimation in truncated sampling processes.*

V. C. Harris, Northwestern, May, minor in physics, *A system of linear difference equations and an associated boundary value problem.*

Stuart Haywood, Maryland, June, minor in electrical engineering, *On the structure of locally connected plane continua on which it is possible to define a pointwise periodic homeomorphism which is not almost periodic.*

P. W. Healy, Kentucky, August, *Derivatives and orders of convergence of Fourier sine series.*

Alex Heller, Columbia, June, *Equivariant maps of space with operators.*

W. R. Heller, Washington University, June, *Kinetic-statistical theory of dielectric breakdown in non-polar crystals.*

Abraham Hillman, Princeton, June, *Algebraic and manifold theoretic properties of a single algebraic differential equation.*

A. K. Hinds, North Carolina, June, *On the second order differential system.*

A. J. Hoffman, Columbia, June, *On the foundations of inversion geometry.*

F. S. Holt, Massachusetts Institute of Technology, June, minor in electrical engineering, *Extension of integral equation methods to heat flow problems.*

T. C. Holyoke, Ohio State, June, *An embedding problem for transitive permutation groups.*

R. T. Hood, Wisconsin, June, *On the asymptotic representation of the solutions of linear ordinary differential equations of the third order relative to a large parameter.*

H. M. Hughes, California, September, *Estimation of the variance of the bivariate normal distribution.*

P. E. Irick, Purdue, February, minor in psychology, *A geometric study of the exact sampling distribution of standard deviations when the sampled population is arbitrary.*

S. L. Isaacson, Columbia, June, *On the theory of unbiased tests of simple statistical hypotheses specifying the values of two or more parameters.*

Lloyd Jackson, California, Los Angeles, August, *Sub-functions and elliptic partial differential equations.*

S. L. Jamison, California, September, *Perturbation of normal operators.*

Meyer Jerison, Michigan, February, *The space of bounded maps into a Banach space.*

S. M. Johnson, Illinois, June, minor in physics, *On the representations of an integer as the sum of k n -tuple products of positive integers.*

R. V. Kadison, Chicago, June, *A unified representation theory for topological algebras.*

Kazar Kazarian, California, Los Angeles, June, *Properties of linearly absolutely continuous functions.*

E. R. Keown, Massachusetts Institute of Technology, June, minor in physics, *Hilbert algebras.*

I. I. Kolodner, New York, June, *On the application of the Boltzmann equations to the theory of gas mixtures.*

H. W. Kuhn, Princeton, June, *Subgroup theorems for groups presented by generators and relations.*

K. C. Kuo, Illinois, June, *The imbedding problem for systems with an incomplete, commutative addition.*

R. M. Lakness, California, June, *Green's theorem and subharmonic functions for multiple spaces.*

R. L. Lane, Texas, June, minor in business administration, *Sequences of points in the complex plane.*

J. R. Lee, Yale, June, *Addition theorems in abstract spaces.*

Patrick Leehey, Brown, June, *On the existence of not necessarily unique solutions of the classical hyperbolic boundary value problems for non-linear second order partial differential equations in two independent variables.*

R. B. Leipnik, California, June, *Heaviside operational calculus.*

Benjamin Lepson, Columbia, June, *Series of analytic functions and polynomial Dirichlet series.*

D. J. Lewis, Michigan, June, *Cubic homogeneous polynomials over a p -adic number field.*

J. A. Lewis, Brown, June, *Free convection in commercial insulating materials.*

R. E. Lowney, Wisconsin, June, *A boundary value problem involving an exponential turning point.*

R. D. Luce, Massachusetts Institute of Technology, June, minor in aeronautical engineering, *On semigroups.*

Harold Luxenberg, California, Los Angeles, August, *The torsion of anisotropic elastic cylinders by forces applied on the lateral surfaces.*

Sister Mary Ferrer McFarland, Notre Dame, June, *On quasi-homomorphisms of the Gauss type and their application to the theory of binary quadratic forms.*

J. E. McLaughlin, California Institute of Technology, June, minor in physics, *Projectivities in relatively complimented lattices.*

A. M. MacBeath, Princeton, June, *The geometry of non-homogeneous lattices.*

R. E. MacKenzie, Princeton, June, *Root numbers and class group relations in cyclotomic fields.*

Nathaniel Macon, North Carolina, June, *Some theorems on the approximation of irrational numbers by the convergents of their continued fractions.*

K. S. Miller, Columbia, June, *On iterative methods in linear differential equations.*

E. F. Moore, Brown, June, I. *Convexly generated k -dimensional measures.* II. *Density ratios and $(\phi - 1)$ rectifiability in n -space.*

D. R. Morrison, Wisconsin, February, *On the extension to rings of the regular matrix representations.*

Leo Moser, North Carolina, August, *On sets of integers which contain no three in arithmetical progression, and on sets of distances determined by finite pointsets.*

W. L. Murdock, Cornell, September, *On the distribution of eigenvalues of kernels and matrices.*

J. F. Nash, Princeton, June, *Non-cooperative games.*

S. W. Nash, California, June, I. *Contribution to the theory of experiments with many treatments.* II. *On the law of the iterated logarithm for dependent random variables.*

Alexander Orden, Massachusetts Institute of Technology, June, minor in physics, *Correction of errors in orbital flight.*

Simon Ostrach, Brown, October, *A boundary layer problem in the theory of free convection.*

Margaret Owchar, Minnesota, June, *Wiener integrals of multiple variations.*

A. J. Owens, Florida, minor in physics, *Effect of a rigid elliptic disk on the stress distribution in an orthotropic plate.*

Athanasios Papoulis, Pennsylvania, February, *On the strong differentiation of the indefinite integral.*

L. E. Payne, Iowa State, June, minors in physics and mechanical engineering, *Torsion and flexure of composite sections.*

J. E. L. Peck, Yale, June, *The embedding of a topological semigroup in a topological group and its generalizations, and an ergodic theorem for a non-commutative semigroup of linear operators.*

A. J. Penico, Pennsylvania, February, *The Wedderburn principal theorem for Jordan algebras.*

A. J. Perlis, Massachusetts Institute of Technology, June, minor in physics, *On integral equations.*

A. D. Perry, Massachusetts Institute of Technology, September, minor in electrical engineering, *Conditionally stable feedback amplifiers.*

R. P. Peterson, California, Los Angeles, June, *Certain optimum statistical decision methods.*

D. H. Porter, Indiana, June, minor in physics, *Two-dimensional bounded variation and absolute continuity.*

C. M. Price, Chicago, June, *Jordan division algebras and their arithmetics.*

J. K. Reckzeh, Kentucky, June, *Modification of the first necessary condition in the calculus of variations for the parametric non-homogeneous case.*

Russell Remage, Pennsylvania, June, *Invariance and periodicity properties of non-alternating in the large transforms.*

R. P. Rich, Johns Hopkins, June, *Contributions to the theory of partially ordered groups.*

Florence V. Rohde, Kentucky, August, *On large deflections of beams.*

Saul Rosen, Pennsylvania, February, *Modular transformation of certain series.*

M. A. Rosenlicht, Harvard, June, *Equivalence concepts on an algebraic curve.*

C. H. Rust, St. Louis, June, *On natural boundaries of a generalized Lambert series.*

Judson Sanderson, Illinois, June, minor in electrical engineering, *Study of the generalized potential integral.*

W. C. Sangren, Michigan, February, *Generalized Fourier expansions.*

A. E. Scheidegger, Toronto, June, minor in physics, *Gravitational radiation and equations of motion.*

E. V. Schenkman, Yale, June, *A theory of subinvariant Lie algebras.*

R. W. Schmied, Brown, June, *Limiting forms of Green's functions*

and Harnack's inequality for multiply connected plane regions.

George Seifert, Cornell, June, minor in physics, *Some third order boundary value problems.*

A. S. Shapiro, Chicago, September, *Cohomology relations in fiber bundles.*

Bernard Sherman, Princeton, June, *A random variable related to the spacing of sample values.*

S. S. Shrikhande, North Carolina, August, *Construction of partially balanced designs and related problems.*

I. M. Singer, Chicago, June, *Lie algebras of unbounded operators.*

J. W. Smith, California, June, *Two classes of self-adjoint boundary conditions for the Laplacian operator.*

J. J. Sopka, Harvard, June, *On the characterization of Reynolds operators on the normed ring of all continuous real-valued functions defined on a compact Hausdorff space.*

J. A. Sullivan, Indiana, October, minor in physics, *Contractions in hyperbolic spaces.*

Wanda Szmielew, California, June, *Arithmetical properties of Abelian groups.*

J. T. Tate, Princeton, June, *Fourier analysis in number fields and Hecke's zeta-functions.*

H. E. Taylor, Rice, June, *Determination of the type and properties of the mapping function for certain classes of Riemann surfaces.*

H. E. Teicher, Columbia, June, *On the factorization of distributions.*

W. B. Thompson, Toronto, June, *Thermal convection and the earth's magnetic field.*

G. D. Torres, Princeton, June, *Some properties of the Alexander polynomial.*

W. A. Vezeau, St. Louis, June, *On the product distribution of normally distributed variables.*

S. A. Vora, North Carolina, June, *Bounds on the distribution of chi-square.*

M. C. Waddell, Johns Hopkins, June, *On properties of regular rings.*

S. S. Walters, California, Los Angeles, January, *Locally bounded linear topological spaces with applications to classes of analytic functions.*

Jack Warga, New York, June, *On the representation of large integers as sums of primes.*

Gerhard Washnitzer, Princeton, June, *A Dirichlet principle for analytic functions of several complex variables.*

H. F. Weinberger, Carnegie Institute of Technology, June, minor in physics, *Fourier transforms of Moebius series.*

G. N. White, Brown, June, I. *Application of the theory of perfectly*

plastic solids to the stress-analysis in strain-hardening solids. II. A quantitative comparison of flow and deformation theories of plasticity.

Alice Winzer, Brown, June, *Discontinuous solutions in problems in the theory of plasticity.*

Henry Wolf, Brown, June, *The propagation of torsional plastic waves in circular cylindrical tubes and shafts.*

D. M. Young, Harvard, June, *Iterative methods for solving partial difference equations of elliptic types.*

J. L. Zemmer, Wisconsin, August, *On the subalgebras of finite division algebras.*

A. D. Ziebur, Wisconsin, June, *The asymptotic solutions of a certain type of ordinary differential equation of the second order, with an application to Whittaker's function $M_{k,m}(z)$.*