

NOTES

The Board of Trustees met on April 25, 1952 and voted to continue, for the three year period beginning July 1, 1952, the \$5.00 page rate now used in the computation of institutional dues. The Board also voted to increase the rate for the publication charge applicable to nonmember institutions from \$5.00 to \$10.00 per page. The cost of publishing contributed papers has advanced very rapidly. The \$10.00 rate just adopted does not fully cover the assembly cost and is less than one-half the full cost of publication. These rates were reconsidered at this time in accordance with a recommendation of the Committee to Study Problems of Publication which was approved by the Council and the Board of Trustees in December, 1951. An announcement concerning the charge for the publication of contributed papers credited to nonmember institutions was made on page 115 of the March issue of this Bulletin. This note revises the page rate stated in the announcement.

The United States Naval Postgraduate School, which was founded in 1909 at Annapolis, Maryland, and until 1947 was a department of the United States Naval Academy, has been moved to Monterey, California.

Associate Professor A. L. Blakers of Lehigh University has been awarded The Alfred Noble Robinson Award for outstanding performance in the service of the University and unusual promise of professional achievement.

Professor I. W. Burr of Purdue University received the Brumbaugh award of the American Society for Quality Control, May, 1951.

Professor Richard Courant of New York University has been elected a foreign member of the Accademia Nazionale dei Lincei.

Professor Einar Hille of Yale University has been elected to the Royal Swedish Academy of Sciences.

Assistant Professor F. E. Hohn of the University of Illinois has received a Ford Foundation grant for the advancement of education during 1951-52.

Mr. M. A. Hyman of the Naval Ordnance Laboratory is a Fulbright Scholar for the year 1951-52 and is at the Technische Hogeschool, Delft, Netherlands.

Professor Nathan Jacobson of Yale University has a Fulbright Award and Guggenheim Fellowship and is studying in Paris for the academic year 1951-52.

Mr. P. G. Kirmser of the Institute of Technology, University of

Minnesota, has a Fulbright Fellowship in Mathematics and is studying at the University of Amsterdam for the academic year 1951-52.

Dr. W. G. Lister of Yale University has been awarded a Post-doctoral Atomic Energy Commission Fellowship.

Dr. W. R. Orton of the University of Illinois has a Fulbright fellowship and is studying in Paris.

Professor George Pólya of Stanford University has been elected an honorary member of the Board of the Mathematical Society of France.

Assistant Professor I. E. Segal of the University of Chicago has a Guggenheim Fellowship and is studying at the Institute for Advanced Study for the academic year 1951-52.

Professor M. H. Stone of the University of Chicago, Visiting Lecturer of the American Mathematical Society 1951-52, has been elected a member of the Academia Brasileira de Ciências.

Professor Oscar Zariski of Harvard University has been elected a member of the American Philosophical Society. He has also been elected a member of the Istituto Lombardo delle Scienze.

Professor E. F. Beckenbach of the University of California, Los Angeles, is on leave of absence and has been appointed a member of the Institute for Advanced Study for the year 1951-52.

Dr. Stefan Bergman of Harvard University has been appointed to a professorship at Stanford University.

Dr. Archie Blake of the Mechanical Research Corporation has accepted a position as head of the International Business Machines Computing Section of the Cornell Aeronautical Laboratory, Buffalo, New York.

Professor Richard Brauer of the University of Michigan has been appointed to a professorship at Harvard University.

Mr. H. H. Brown of the Armour Research Foundation, Illinois Institute of Technology, has accepted a position as senior research engineer with the Franklin Institute Laboratories for Research and Development, Philadelphia, Pennsylvania.

Assistant Professor R. E. Carr of Michigan State College has accepted a position as research engineer with North American Aviation, Inc., Downey, California.

Dr. P. F. Conrad of the University of Illinois has been appointed to an assistant professorship at Newcomb College, Tulane University of Louisiana.

Dr. G. F. Cramer of the Defense Department has accepted a position as engineer with R. C. A. Victor.

Assistant Professor S. P. Diliberto of the University of California,

Berkeley, is on leave of absence and has been appointed to a visiting assistant professorship at Princeton University.

Professor F. C. Gentry of Arizona State College is on leave of absence and is teaching at the University of New Mexico for the academic year 1951-52.

Dr. T. R. Greene of Carnegie Institute of Technology has accepted a position as engineer with The General Electric Company, Schenectady, New York.

Mr. S. G. Kneale of Harvard University has accepted a position as mathematician with the Philco Corporation, Philadelphia, Pennsylvania.

Dr. Waclaw Kozakiewicz of the University of Montreal has been appointed to an associate professorship at McGill University.

Professor E. P. Lane of the University of Chicago has retired.

Dr. R. A. Leibler of the Navy Department has accepted a position as mathematician with the Sandia Corporation, Albuquerque, New Mexico.

Dr. B. A. Lengyel of the Office of Naval Research has accepted a position as consultant with the Howard Hughes Aircraft Company, Culver City, California.

Mr. O. T. McMillan of Michigan State College has accepted a position as research associate at the Willow Run Research Center, University of Michigan, Ypsilanti, Michigan.

Mr. H. G. Mazurkiewicz of the Willow Run Research Center, University of Michigan, has accepted a position as engineer with the Glenn L. Martin Company, Baltimore, Maryland.

Mr. R. E. Montgomery has accepted a position as a mathematical research analyst and staff member with the Sandia Corporation, Albuquerque, New Mexico.

Dr. J. D. Newburgh of the Institute for Advanced Study has been appointed to an assistant professorship at Tulane University of Louisiana.

Mr. Adolf Nussbaum of Columbia University has accepted a position as staff member with the Electronic Computer Project, Institute for Advanced Study.

Dr. I. S. Reed of Northrup Aircraft, Hawthorne, California, and the University of Southern California has accepted a position on the D. I. C. Staff with the Massachusetts Institute of Technology.

Professor C. N. Reynolds of West Virginia University has retired with the title emeritus.

Professor G. E. F. Sherwood of the University of California, Los Angeles, has retired with the title emeritus.

Associate Professor J. L. Vanderslice of the University of Maryland is on leave of absence and has accepted a position as mathematician with the Johns Hopkins Applied Physics Laboratory, Silver Spring, Maryland.

Mr. Thirukkannapuram Vijayaraghavan of the Ramanujan Institute of Mathematics has been appointed a visiting lecturer at the University of Chicago.

Mr. R. F. Wheeling of Brown University has accepted a position as technologist with the Socony-Vacuum Oil Company, Paulsboro, New Jersey.

Mr. Herman Zabronsky of the University of Pennsylvania has accepted a position as associate mathematician with Union Carbide, Oak Ridge, Tennessee.

The following promotions are announced:

B. H. Arnold, Oregon State College, to an associate professorship.

Clifford Bell, University of California, Los Angeles, to a professorship.

W. M. Boothby, Northwestern University, to an assistant professorship.

B. W. Brewer, Oregon State College, to an associate professorship.

Hermann Chernoff, University of Illinois, to an associate professorship.

L. A. Colquitt, Texas Christian University, to an associate professorship.

F. D. Faulkner, United States Naval Postgraduate School, to an associate professorship.

J. B. Giever, Boston University, to an assistant professorship.

Michael Golomb, Purdue University, to a professorship.

F. C. Leone, Case Institute of Technology, to an assistant professorship.

Jakob Levitzki, Hebrew University, to a professorship.

Harry Levy, University of Illinois, to a professorship.

A. B. Mewborn, United States Naval Postgraduate School, to a professorship.

K. S. Miller, New York University, to an assistant professorship.

Sam Perlis, Purdue University, to an associate professorship.

R. M. Redheffer, University of California, Los Angeles, to an assistant professorship.

F. Virginia Rohde, University of Florida, to an assistant professorship.

J. P. Scholz, Lebanon Valley College, to an associate professorship.

H. E. Vaughan, University of Illinois, to an associate professorship.

The following appointments to instructorships are announced: Boston University: Dr. F. E. Browder; University of Detroit: Mr. B. V. Ritchie; Drexel Institute of Technology: Mr. J. S. Biggerstaff; Illinois Institute of Technology: Mr. Albert Soglin; University of Maryland: Mr. G. L. Spencer; University of Rochester: Mr. R. W. MacDowell; Northwestern University: Mr. W. E. Jenner, Mr. T. C. Littlejohn; Syracuse University: Dr. Jerome Blackman; Wayne University: Mr. C. H. Kraft, Mr. C. K. Tsao.

Mr. E. M. DiDomenica of Drexel Institute of Technology died on October 5, 1951 at the age of forty-five years.

Assistant Professor F. G. Graff of Oberlin College died on February 22, 1952 at the age of forty years.

Mr. E. B. Fackler, Vice President and Actuary of The Western and Southern Life Insurance Company, died on January 8, 1952, at the age of seventy-two years.

Professor Emeritus W. B. Fite of Columbia University died on March 1, 1952 at the age of eighty-two years. He had been a member of the Society for thirty-seven years.

Professor V. S. Lawrence, Jr., of the Virginia Polytechnic Institute died on February 20, 1952 at the age of fifty-six years. He had been a member of the Society for twenty-one years.

Professor Emeritus N. J. Lennes of Montana State University died on November 21, 1951 at the age of seventy-seven years. He had been a member of the Society for thirty-eight years.

Dr. P. F. Neményi, of the Naval Research Laboratory, died on March 1, 1952 at the age of fifty-six years.

The following two hundred and seventeen doctorates, with mathematics, mathematical physics, or statistics as a major subject, were conferred during 1951 in universities in the United States and Canada. The university, month in which degree was conferred, minor subjects, (other than mathematics), and title of the dissertation are given in each case if available.

C. M. Ablow, Brown, June, *Perturbations of free surface flows.*

O. R. Ainsworth, California, Berkeley, September, *Theory of waves from a point source in one of two semi-infinite contiguous elastic media.*

M. I. Aissen, Stanford, September, *On the estimation and computation of torsional rigidity.*

N. C. Ankeny, Princeton, January, *Consequences of the extended Riemann hypothesis.*

Sholom Arzt, New York, May, *On a mean value theorem for certain divisor functions taken over exponential sequences.*

D. G. Austin, Northwestern, June, *Some Lipschitzian approximations to differentiable and approximately differentiable functions.*

W. G. Bade, California, Los Angeles, June, *An operational calculus for operators with spectrum confined to a strip.*

J. H. Barrett, Texas, June, *Ordinary differential equations of non-integral order.*

R. G. Bartle, Chicago, August, *Singular points of functional equations.*

M. A. A. Bassam, Texas, June, *Holmgren-Riesz transform.*

R. H. Battin, Massachusetts Institute of Technology, June, minor in mechanical engineering, *Investigation of oscillation in flows over curved surfaces.*

R. E. Bechhofer, Columbia, June, minor in statistical quality control, *The effect of preliminary tests of significance on the size and power of certain tests of univariate linear hypotheses.*

F. A. Beeler, Michigan, February, *A study of the variation in the moments of a frequency distribution due to grouping.*

L. D. Berkovitz, Chicago, August, I. *Circular-summations and localizations of double trigonometric series.* II. *On double trigonometric integrals.* III. *On double Sturm-Liouville expansions.*

S. D. Bernardi, New York, May, *On the coefficients of schlicht functions.*

D. W. Blackett, Princeton, October, *Simple and semisimple near rings.*

Jerome Blackman, Cornell, June, minor in physics, *Studies in the heat equation.*

A. A. Blank, New York, January, *The diffraction and reflection of pulses by wedges and corners.*

G. M. Bloom, Northwestern, June, *On the total variation of solutions of the bounded variation moment problem.*

Jean M. Boyer, Maryland, August, *An arc problem.*

Fred Brafman, Michigan, February, *Generating functions of Jacobi and related polynomials.*

Paul Brock, New York, May, *The nature of solutions of a Raleigh type forced vibration equation with a large coefficient of damping.*

R. L. Broussard, Louisiana State, August, *A necessary and sufficient condition that a set be homeomorphic to a plane region bounded by a finite number of nonintersecting circles.*

R. H. Brown, Columbia, June, *The solution of a certain difference equation with applications to probability.*

C. E. Burgess, Texas, June, *Concerning continua and their complementary domains in the plane.*

L. P. Burton, North Carolina, June, *Minimax solutions of ordinary differential systems.*

G. H. Butcher, Pennsylvania, February, *An extension of the sum theorem of dimension theory.*

P. L. Butzer, Toronto, October, minor in quantum mechanics, *On Bernstein polynomials.*

Eugenio Calabi, Princeton, October, *Isometric complex analytic embedding of Kähler manifolds.*

J. W. Carr, III, Massachusetts Institute of Technology, September, minor in physics, *Direct method of solution of the Schrödinger eigenvalue problem by a high-speed digital computing machine.*

H. H. Chang, Syracuse, January, *Approximately analytic functions of bounded type and boundary behavior of solutions of elliptic partial differential equations.*

J. O. Chellevold, Lehigh, June, *Singular quadratic functions for n dependent variables.*

L. P. H. Cheo, Oregon, June, *The density of the sum of sets of Gaussian integers.*

G. Y. Cherlin, Rutgers, June, minor in logic, *Bounds for the coefficients of some classes of odd multivalent functions.*

Elsie T. Church, Kentucky, June, *Inversion with respect to a cubic of the syzygetic pencil.*

A. B. Clarke, Brown, June, *On the representation of cardinal algebras by directed sums.*

W. J. Conner, Tulane, June, *On locally closed sets.*

W. S. Connor, North Carolina, August, *The structure of balanced incomplete block designs and the impossibility of certain unsymmetrical cases.*

P. F. Conrad, Illinois, June, minor in philosophy, *Imbedding theorems for Abelian groups with valuations.*

S. D. Conte, Michigan, February, *Thin plate problem involving bipolar coordinates.*

J. M. Cook, Chicago, August, *The mathematics of second quantization.*

Philip Cooperman, New York, January, *An extension of the method of Trefftz for finding local bounds on the solutions and their derivations of boundary value problems.*

C. W. Curtis, Yale, June, *Additive ideal theory in general rings.*

M. L. Curtis, Michigan, February, *Deformation-free continua in Euclidean n -space.*

Elizabeth H. Cuthill, Minnesota, December, minor in physics, *Integrals on spaces of functions which are real and continuous on finite and infinite intervals.*

E. A. Davis, California, Berkeley, June, *A dynamic economic theory.*

R. B. Davis, Massachusetts Institute of Technology, June, minor in physics, *Boundary value problem existence theorems for third order semi-elliptic partial differential equations.*

R. J. Diamond, California Institute of Technology, June, minor in physics, *A type of pseudo-norm.*

V. E. Dietrich, Purdue, August, minor in physics, *Some classifications of projective planes by incidence matrices.*

Flora Dinkines, Chicago, August, *Semi-automorphisms of groups.*

W. F. Donoghue, Jr., Wisconsin, August, minor in physics, *The bounded closure of locally convex spaces.*

Leila A. Dragonette, Pennsylvania, June, *Asymptotic formulae for the mock theta series of Ramanujan.*

Milton Drandell, California, Los Angeles, June, *Generalized convex sets in the plane.*

G. F. D. Duff, Princeton, April, *Limit-cycles and rotated vector fields.*

D. G. Duncan, Michigan, February, *Some results in Littlewood's algebra of S-functions.*

B. J. Eisenstadt, Michigan, June, *The space of inessential continuous functions into the circle.*

R. L. Ely, Carnegie Institute of Technology, June, *Forced vibrations of continuous beams under pulsating, moving loads.*

J. L. Ericksen, Indiana, September, minor in physics, *Some geometrical problems connected with ideal gas flows.*

G. W. Evans, New York, May, *The motion of the interface in heat conduction problems involving recrystallization.*

R. L. Evans, Minnesota, June, minor in physical chemistry, *Asymptotic solutions in the neighborhood of a turning point for linear ordinary differential equations containing a parameter.*

O. B. Faircloth, Texas, June, *On the number of solutions of some general types of equations in a finite field.*

A. L. Fass, Columbia, June, *Homology and cohomology of algebras.*

J. M. G. Fell, California, Berkeley, January, *On L-spaces.*

J. V. Finch, Chicago, June, *On Banach spaces with inner products.*

Robert Finn, Syracuse, June, *On some properties of the solutions of a class of non-linear partial differential equations.*

W. H. Fleming, Wisconsin, August, *Boundary and related notions for generalized parametric surfaces.*

A. E. Foster, Kentucky, August, *A generalized harmonic conjugate for commutative algebras.*

L. K. Frazer, Indiana, June, minor in physics, *One-parameter families of linear line complexes.*

M. S. Friberg, Minnesota, June, minor in physics, *A method for the effective determination of conformal maps.*

D. R. Fulkerson, Wisconsin, January, *Quasi-Hermite forms of row-finite matrices.*

J. W. Gaddum, Missouri, August, *Metric methods in integral and differential geometry.*

M. P. Gaffney, Jr., Chicago, June, *The harmonic operator for exterior differential forms.*

Dieter Gaier, Rochester, November, minor in physics, *On some Tauberian theorems.*

Leonard Geller, Massachusetts Institute of Technology, June, minor in English and history, *Absolute convergence of Lebesgue-Stieltjes trigonometric integrals.*

Harvey Gellman, Toronto, October, minor in nuclear physics, *Computation of the magnetic field produced by a moving liquid.*

Murray Gerstenhaber, Chicago, June, *Rings of derivations.*

Sister M. Seraphim Gibbons, Minnesota, June, minor in physics, *A solution by iteration of the integral equations connected with the Dirichlet and Neumann problems in three dimensions.*

W. M. Gilbert, Princeton, June, *Completely monotonic functions of several variables.*

I. L. Glicksberg, California, Los Angeles, June, *Cesaro summation in harmonic analysis on groups.*

S. I. Goldberg, Toronto, October, minor in quantum mechanics, *Cohomology Lie algebras and Lie groups.*

L. A. Goodman, Princeton, October, *The estimation of population size using sequential sampling tagging methods.*

C. H. Gordon, Massachusetts Institute of Technology, September, minor in physics, *Tunnell wall effects for non-uniform two dimensional motion of thin airfoils in incompressible flow.*

R. P. Gosselin, Chicago, August, *The theory of localization for double trigonometric series.*

T. R. Greene, Carnegie Institute of Technology, June, *Water waves in channels of infinite depth.*

E. V. Greer, Oklahoma, June, minor in physics, *A theorem on planar transformations.*

W. T. Guy, California Institute of Technology, June, minor in physics, *Contributions to tensor analysis.*

Violet B. Haas, Massachusetts Institute of Technology, June, minor in physics, *Singular perturbations of an ordinary differential equation.*

Melvin Hausner, Princeton, June, *Dirichlet's principle and generalized boundary values.*

Nickolas Heerema, Tennessee, August, *An algebra determined by a binary cubic form.*

L. J. Heider, Michigan, June, *Characterizations of continuous function Banach spaces.*

Henry Helson, Harvard, March, *Fourier transforms and spectral synthesis on locally compact Abelian groups.*

Melvin Henriksen, Wisconsin, August, *On the ideal structure of the ring of entire functions and other function rings.*

R. T. Herbst, Duke, June, minor in physics, *Reduction of passive orthonormic differential systems to passive systems of the first order.*

B. E. Howard, Illinois, June, minor in electrical engineering, *Hydrodynamic properties of an electron gas.*

Burrowes Hunt, Colorado, August, minors in physics and philosophy, *Parameters determining the numbers of solutions of certain congruences or equations in a finite field.*

E. R. Immel, California, Los Angeles, June, *Problems of estimation and of hypothesis testing connected with birth-and-death Markov processes.*

B. M. Ingersoll, Syracuse, June, *On a problem of Cauchy type for linear hyperbolic equations.*

J. S. Isenberg, Brown, June, I. *On some problems in three-dimensional boundary layer flow.* II. *Supersonic flow past a solid body—two-dimensional case.*

H. W. Ito, Minnesota, August, minor in mechanics, *On conjugate functions.*

W. W. Jacobs, George Washington, May, *Random matrices.*

G. B. Kallianpur, North Carolina, August, *Some topics in the theory of stochastic processes.*

E. L. Kaplan, Princeton, January, *Infinite permutations of stationary random sequences.*

Josef Kates, Toronto, October, minor in quantum electrodynamics, *Space charge effects in cathode ray storage tubes.*

Stanley Katz, New York, February, *On the representation of power free integrals by a system of polynomials.*

J. W. Keesee, Tulane, June, *Cohomology groups of a collection.*

E. P. King, Carnegie Institute of Technology, June, *The operating characteristic of the control chart for sample means when process standards are unspecified.*

J. R. Kinney, Illinois, June, minor in physics, *Continuity properties of sample functions of Markov processes.*

George Klein, Chicago, August, *On the approximation of functions by polynomials.*

Erwin Kleinfeld, Wisconsin, June, *Alternative rings.*

J. R. Knudsen, New York, May, *A study of effects of viscosity and heat conductivity on the transmission of sound waves in a compressible fluid.*

L. D. Kovach, Purdue, August, *On elementary nilpotent algebras.*

K. H. Kramer, Carnegie Institute of Technology, June, *The distribution of range in compositions of normal universes.*

S. A. Kushneriuk, Toronto, June, minor in quantum mechanics, *Central and tensor forces in the scattering of protons by protons.*

J. M. A. L'Abbé, Princeton, June, *Systems of transfinite types involving n -conversion.*

R. J. Lambert, Iowa State, July, minor in physics, *Extension of normal theory to general matrices.*

N. D. Lane, Toronto, October, minor in quantum mechanics, *A symmetric proof of the Riemann-Roch theorem and related properties.*

S. R. Lang, Princeton, June, *On quasi algebraic closure.*

G. E. Latta, California Institute of Technology, June, minor in aeronautics, *Singular perturbation problems.*

G. F. Leger, Illinois, June, minor in physics, *On cohomology theory for Lie algebras.*

Norman Levine, Ohio State, August, *Absolutely continuous product transformations in the plane.*

W. G. Lister, Yale, June, *A structure theory of Lie triple systems.*

A. J. Lohwater, Rochester, June, minor in physics, *The boundary values of a class of analytic functions.*

A. R. Lovaglia, California, Berkeley, September, *Locally uniformly convex Banach spaces.*

J. R. Lurye, New York, May, *Electromagnetic reflection and transmission matrices of a continuously stratified anisotropic medium by variational technique.*

John McCarthy, Princeton, June, *Projection operators and partial differential equations.*

J. S. MacNerney, Texas, June, *Continued fractions in which the elements are operators in a linear space.*

Paul Mandl, Toronto, October, minor in atomic and molecular spectra, *Transition through a weak shock front.*

W. H. Marlow, Iowa, February, *On limits of phalanxes.*

George Marsaglia, Ohio State, March, *Stochastic processes and classes of random variables.*

J. E. Maxfield, Oregon, June, *Normal numbers in k dimensions.*

Margaret W. Maxfield, Oregon, June, *Fermat's theorem for matrices over a modular ring.*

Paul Meier, Princeton, October, *Weighted means and lattice designs.*

- D. M. Merriell, Chicago, June, *On almost alternative flexible algebras*.
- E. A. Michael, Chicago, August, *Locally m -convex algebras*.
- P. T. Mielke, Purdue, June, minor in engineering mechanics, *Improper integrals in abstract spaces*.
- Joseph Milkman, New York, May, *Hermite polynomials, Hermite functionals and their integrals in real Hilbert space*.
- C. E. Miller, Chicago, June, *The topology of rotation groups*.
- W. G. Miller, Florida, August, minor in economics, *The mathematics of production and consumption in a static economy*.
- B. E. Mitchell, Wisconsin, August, *Some properties of matrices under unitary transformation*.
- Don Mittleman, Columbia, June, *The unions of trajectorial series of lineal elements generated by the plane motion of a rigid body*.
- R. W. Moller, Catholic University, June, minors in physics and philosophy, *Symmetric functions of the numbers belonging to a divisor of $p-1$ where p is a prime*.
- W. K. Moore, Kansas, June, minor in physics, *The characterizations of a class of transformations and of a class of differentiable functions*.
- Cathleen S. Morawetz, New York, February, *Contracting spherical shocks treated by a perturbation method*.
- Sister M. Jesse Morrison, Catholic University, June, minors in physics and education, *Magic rectangles modulo m* .
- R. B. Murphy, Princeton, October, *On tests for outlying observations*.
- G. G. Murray, Jr., Harvard, June, *Measures in Boolean algebras*.
- William Nachbar, Brown, June, *Initial motion problems in plane strain of a plastic-rigid material*.
- G. G. O'Brien, Maryland, June, *Theorems on stability and convergence in numerical solutions of partial differential equations*.
- H. W. Oliver, Chicago, August, *Differential properties of real functions*.
- Ingram Olkin, North Carolina, June, *On distribution problems in multivariate analysis*.
- Barrett O'Neill, Massachusetts Institute of Technology, September, minor in English and history, *Some fixed point theorems*.
- Daniel Orloff, Chicago, June, *Invariant measures*.
- W. R. Orton, Jr., Illinois, June, *Representation of functions of a complex variable and related integral equations*.
- D. B. Owen, University of Washington, March, *A two sample test procedure*.

W. D. Peeples, Jr., Georgia, June, *Elliptic curves and rational distance sets*.

M. P. Peisakoff, Princeton, October, *Transformation parameters*.

G. O. Peters, Georgia, August, *Bernoulli polynomials of the second kind of higher order. Euler polynomials of the second kind of first and higher orders. Boole polynomials of the first and second kinds of higher order. Bernoulli, Euler, and Boole series and functions of negative degree*.

G. M. Petersen, Toronto, June, minor in quantum mechanics, *Methods of summation of divergent series and means of Fourier constants*.

W. A. Pierce, Harvard, March, *Extensibility foundations of Euclidean, hyperbolic, and spherical geometry in the plane*.

F. A. E. Pirani, Carnegie Institute of Technology, June, *On the quantization of the gravitational field of general relativity*.

F. V. Pohle, New York, January, *The Lagrangian equations of hydrodynamics: Solutions which are analytic functions of the time*.

H. O. Pollak, Harvard, June, *Some estimates for the extremal distance*.

Ruth L. Potter, Washington University, May, *Oscillation and boundedness of solutions of a second-order linear differential equation*.

F. P. Pu, Syracuse, January, *Some inequalities in certain non-orientable Riemannian manifolds*.

Philip Rabinowitz, Pennsylvania, June, *Normal coverings and uniform spaces*.

K. G. Ramanathan, Princeton, June, *The theory of units of quadratic and Hermitian forms*.

R. F. Reeves, Iowa State, June, minor in physics, *Force fields in which centers of gravity can be defined*.

Daniel Resch, Syracuse, January, *Some Baecklund transformations of partial differential equations of second order*.

T. L. Reynolds, North Carolina, June, *On the impossibility of an odd perfect number not divisible by five with six different prime divisors*.

D. D. Rippe, Michigan, June, *Statistical rank and sampling variation of the results of factorization of covariance matrices*.

G. B. Robison, Cornell, September, minor in education, *Invariant integrals over a Banach space*.

R. L. Roderick, Brown, June, I. *On the measurement of ultrasonic attenuation in solids by the pulse technique and some results in steel*. II. *The radiation pattern from a rotationally symmetric stress source on a semi-infinite solid*.

I. H. Rose, Harvard, June, *On the cohomology theory of associative algebras.*

I. A. Rosenberg, Chicago, August, *Subrings of simple rings with minimal ideals.*

H. L. Royden, Jr., Harvard, June, *Harmonic functions on open Riemann surfaces.*

J. H. Sampson, Princeton, June, *The Dirichlet problem in the large.*

James Sanders, Syracuse, June, *Some classes of partial differential equations of the fourth order.*

W. K. Saunders, California, Berkeley, July, *Existence of the solution of the exterior problem of the electromagnetic field.*

J. W. Sawyer, Missouri, August, *A study of metric torsion.*

Albert Schild, Pennsylvania, February, *On a problem in conformal mapping of schlicht functions.*

L. L. Scott, Illinois, October, *Finite metabelian groups and planes of Σ_{14} .*

Raymond Sedney, Carnegie Institute of Technology, June, *On the hydrodynamical theory of lubrication. I. The Reynolds lubrication equation with smooth outflow. II. The finite length journal bearing with high eccentricity.*

J. B. Serrin, Jr., Indiana, June, minor in physics, *The existence and uniqueness of flows solving four free boundary problems.*

B. W. Shaffer, Brown, June, *Analysis of chip formation in the turning operation.*

J. A. Silva, Duke, June, minor in physics, *Representation of arithmetic functions in $GF[p^n, x]$ with values in an arbitrary field.*

Maurice Sion, California, Berkeley, June, *On the existence of functions having given partial derivatives on Whitney's curve.*

K. T. Smith, Wisconsin, August, *The L-B topology in locally convex spaces.*

L. J. Snell, Illinois, October, minor in physics, *Applications of martingale system theorems.*

Milton Sobel, Columbia, January, *An essentially complete class of decision functions for certain standard sequential problems.*

S. M. Spencer, Jr., Duke, June, minor in philosophy, *Transcendental numbers over certain function fields.*

J. P. Stanley, Toronto, June, *The theory of propagation of very long radio waves in the ionosphere.*

M. L. Stein, California, Los Angeles, January, *On methods for obtaining solutions of fixed end point problems in the calculus of variations.*

Fritz Steinhardt, Columbia, June, *On distance functions and on polar series of convex bodies.*

R. L. Sternberg, Northwestern, June, *Non-oscillation theorems for systems of differential equations.*

R. A. Struble, Notre Dame, June, *Metric and measure in locally compact groups.*

R. B. Talmadge, California Institute of Technology, June, minor in physics, *The representation of Baire functions.*

W. F. Taylor, California, Berkeley, January, *On tests of hypotheses and best asymptotically normal estimates related to certain biological tests.*

M. E. Terry, North Carolina, June, *Some rank order tests which are most powerful against specific parametric alternatives.*

J. E. Thompson, Minnesota, June, minor in mechanics, *Studies of the behavior of the mapping function on the boundary in conformal mapping.*

J. A. Tierney, Maryland, June, *An approximation to transonic flow of a polytropic gas.*

F. H. Tingey, University of Washington, August, minor in meteorology, *Extension of Kolmogoroff statistic to more than one dimension.*

S. H. Tsao, Michigan, February, *On groups of order $g = p^2g'$.*

G. E. Uhrich, University of Washington, December, minor in physics, *On the solutions of systems of generalized hyperbolic differential equations.*

Bethume Vanderburg, Chicago, August, *Linear combinations of Hausdorff summability methods.*

D. E. Van Tijn, Indiana, June, minor in physics, *An interpretation for free variables.*

H. C. Volkin, Carnegie Institute of Technology, June, *Rotating and accelerated reference systems.*

D. H. Wagner, Brown, June, *On free products of groups.*

J. H. Wahab, North Carolina, June, *Some new cases of irreducibility for Legendre polynomials.*

A. M. Wedel, Iowa State, July, minor in physics, *Volterra transforms of some hypergeometric series.*

L. M. Weiner, Chicago, August, *Lie admissible algebras.*

Harold Weintraub, Harvard, June, *Borel monogenic functions.*

H. J. Weiss, Carnegie Institute of Technology, June, *Structural stability of thin-walled open sections.*

John Wermer, Harvard, June, *On the harmonic analysis of certain groups and semigroups of operators.*

R. A. Worsing, Iowa State, July, minor in physics, *Integral equation solutions of elastic plate problems*.

Arthur Wouk, Johns Hopkins, June, *Difference equations and J-matrices*.

J. B. Wright, Michigan, February, *Metaprojective geometry*.

F. H. Young, Oregon, June, *A matrix transformation of Fourier coefficients*.

The following four doctorates were conferred in 1950, but were not included in the list in the preceding volume of this BULLETIN (vol. 57, pp. 211-219).

Geraldine A. Coon, Rochester, November, minor in physics, *The double Laplace transform and its application to partial differential equations*.

L. E. Moses, Stanford, September, *An iterative construction of the optimum sequential decision procedure when the cost function is linear*.

C. J. Pipes, Oklahoma, August, minor in physics, *Properties of sets and functions relative to exceptional sets*.

W. A. Rutledge, Tennessee, August, *The Hurwitz integral quaternions as a principal ideal domain*.