15/14/30
Liberal Arts and Sciences
Mathematics
Mahlon M. Day Papers, 1934-93
Box 1:
Bibliography, 1982
Publications ( 3 folders), 1939-82
Correspondence ( 5 folders), 1940-48, 1963, 1970-86, 1991
Official Letters, 1936-44
University of Illinois Correspondence, 1943-46, 1955-63, 1971-86, 1990
Family, Elizabeth Coone Day and Mrs. Coone, 1950
Photographs, family, 1950
Death of Elizabeth Day--correspondence, clippings, copy of final letter, 1951
Brown University
Papers, Introduction to Literature, 1934
Division puzzle, 1937
M. S. Thesis, Function to Function Transformations (2 folders), 1937

Statement of the Department of Mathematics Concerning Day, 1939
Minor Thesis, Distribution of Primes, 1939
Thesis manuscript, notes, 1939
Ph. D. Thesis, Weak and strong regularity conditions, 1939
Convocation, June 17, 1939
Mathematical notes, 1940-41
Under investigation, notes
Course notes
Jacob D. Tamarkin, Polynomials of Approximation, 1936
C. R. Adams, Introduction to Analysis, 1936-37

Differential geometry notes, Math 201-2, 1936-37
Problems, 1936-37
J. D. Tamarkin, Theory of Abstract Spaces, 1937

Algebra notes, 1937-38
Rough moment problem notes, 1938
Box 2:
J. D. Tamarkin, Measure and Probability notes, 1938-39

Von Neumann notes, 1939-40
Notes, 1940
Elizabeth Day, English 45 (drama), notes and papers, 1940
Banach, "Operations Lineares"
Geology 1 course materials
Math 227, Functional Analysis
Math 228, Tamarkin
Math 232, Differential Equations, notes, Chapter I
Chapter II
Chapter III
Complex Variables outline
Manuscripts
Lists
Regular function-to-function transformations, 1938
L $^{\mathrm{p}}$ paper, 1940
Reflexive spaces which can not be made uniformly convex, 1940

Some more uniformly convex spaces, 1940
On Linear Methods of Summability, 1940
"On Linear Methods of Summability" and "A Norm Ergodic Theorem," first versions, 1940
"On Linear Methods of Summability" and "A Norm Ergodic Theorem" (3 folders), 194041
A Property of Banach Spaces, 1941
Operations in Banach Spaces, 1942
Ergodic Theorems for Abelian Semi-Groups, 1942
Convergence, Closure, and Neighborhoods (2 folders), 1943
Uniform Convexity III, 1943
Uniform Convexity in Factor and Conjugate Spaces, 1943
Oriented Systems, 1943-44
Cluster Points of Subsequences, 1944
Every Linear Metric Space Is a Linear Topological Spaces, 1949
On Criteria of Kasanara and Blumenthal for Inner Product Spaces, 1955-59
On Projections, Mar. 10, 1956
Semigroups and Means, 1956
Reviews of Normed Linear Spaces, 1958-60
On the Basis Problem in Normed Spaces, 1959-61
Fixed-Point Theorems for Compact Convex Sets, 1960
Reviews of Normed Linear Spaces, 2nd ed., 1963
Correspondence on Normed Linear Spaces, 1963-70, 1983
Convolution, Means and Spectra (2 folders), 1963-64
Fixed-Point Correction, 1964
Amenability and Equicontinuity, 1967-68
Semigroups and Invariant Means, 1968
Semigroups and Amenability, rough copy, 1968
Semifinal copy, 1968
Final copy, 1968
Errata
Correspondence, 1969
Box 3:
Normed Linear Spaces that are Uniformly Convex in Every Direction, 1971
Varieties of Amenable Groups, ca. 1971
A Geometric Proof of Asplund's Differentiation Theorem, 1972-73
Normed Linear Spaces, 3rd ed., Superreflexive spaces, 1972
Normed Linear Spaces, 3 rd ed. ( 2 folders), 1971, 1973
Index, 1973
Part of typescript
Proofs, 1972-75
Errata sheets, 1983
Mimicry in Normed Spaces (2 folders), 1974, 1977
Invariant Renorming, 1975
Invariant Renorming of $c_{0}, m$, and $L^{1}$ Spaces, ca. 1975
On a Renorming Theorem of Sz.-Nagy, 1975-76
Manuscript on lumpy subsets, 1976
Comments on Notes of Stanojevic et al., 1976-82
Bade functional paper, 1977-81
Left Thick to Left Lumpy..., 1979-82

Book review, Berglund, Junghenn, and Milnes, 1980
Functionally Left Lumpy Sets (3 folders), 1981-84
"Citation" Classic, 1982
Convergence and Order (6 folders), 1983-84
Correspondence, 1984-85
Inner-Product Potpourri, drafts, reprints, 1989-90
Basis problem in reflexive spaces, notes
Borwein's Characterization of Inner Product Spaces
Rotundity, Smoothness, Duality notes
Unfixed Points
Weak containment and amenability, notes

## Box 4:

Reviews, Mathematical Reviews (19 folders), 1945-81
Box 5:
Reviews, Mathematical Reviews ( 2 folders), 1986, 1992
Reviews--correspondence, 1939, 1964-70, 1976-81
Research Grants
Office of Naval Research, 1947-50. 1954
1954-63
Office of Ordnance Research, 1955-56
National Science Foundation (6 folders), 1969-76
Conferences
International Congress of Mathematicians, Cambridge, MA, Aug. 30 - Sept. 6, 1950
Symposium on Convexity, Seattle, June 13-15, 1961
Symposium on Semigroups at Wayne State University, 1967-69
International Symposium on Partial Differential Equations and Geometry of Normed Spaces, Jerusalem, June 19-28, 1972
Wabash International Conference on Banach Spaces, June 25-29, 1973
East Lansing Conference on the Geometry of Metric and Linear Spaces, 1974-75
RNP Conference, notes, Feb. 8, 1975
Seminar on Fixed Point Theory, Halifax, 1975-76
Durham Symposium on the Relations between Infinite Dimensional and Finite
Dimensional Convexity, 1975-76
Day Conference (Conference on the Geometry of Normed Linear Spaces), 1983
Factorization of Linear Operators and Geometry of Banach Spaces Conference, 1984
Math Course Materials
1976-85
Math 117, lectures, early 1950s
Math 125, Spring 1979
Math 135, \&B1, Fall 1979
Math 140, D2, Fall 1977
Math 141, \&C3, Fall 1978
Math 149, 1978-79
Class notes
Math 242 (2 folders), Fall 1975
Math 301, class notes
Math 315 (2 folders), Fall 1985
Math 319 (3 folders), Spring 1978 - Spring 1983

Math 343 notes, exterior forms, Fall 1975
Math 344 (2 folders), Summer 1985
Box 6:
Math 346, Spring 1982
Math 361, Summer 1977, Spring 1982
Math 383 (2 folders), Summer 1983
Math 391, 1981-82
Math 430, class notes
Math 431, class notes
Math 441, hour exam, Spring 1959
Notes, chapters I to V
Notes on bounded variation
Math 442, notes
Math 446, class notes
Math 447, background notes--Introduction to Functional Analysis by A. L. Peressini, 1963
Math 450 notes
Math 469 notes
Student course papers 1969-75
American Association for the Advancement of Science Council, 1965-69
American Federation of Teachers/Union of Professional Employees, 1978-81
J. F. Berglund, H. D. Junghenn, and P. Milnes, 1984

Bulletin of the American Mathematical Society, refereeing, 1941-44
Bylaws, 1973-74
Cairns, S. S., head of Department of Mathematics, 1958
Capricious Grading Committee (2 folders), 1981-83
Chou, Ching, 1970
Church, Alonzo, Coble Memorial Lectures, background material, notes, Sept. 23-25, 1975
Colleagues, Correspondence with, B - J, 1963-91
K - Y, 1961-93
Committee on Support of Research In the Mathematical Sciences (2 folders), 1965-68
Committee on Undergraduate Programs, 1959-62

## Box 7:

Computer Calculus, 1972-74
Computing Equipment Purchase Committee, 1974
Day, F., Computer Programming Notebook, 1984
Fell Seminar
Friends General Conference, 1980, 1984
Functional Analysis Seminar notes
Geometry for Analysts (2 folders), 1975-81
Groups for Analysts--Amenability
Iceland, 1975
Illinois Journal of Mathematics ( 3 folders), 1970-71, 1980, 1983-86
Improbable Similarities Committee, 1984-85
Invited Talks, 1961-81
Karayannakis, Dimitri, 1986
Kharaghani, H., 1978-79
Knox College Visiting Examiner, May 1984

Landslad, Magnus B., "On the Bohr topology in amenable topological groups," notes Lectures on Linear Spaces, University of Arizona (2 folders), 1960
LETTER/righter, 1981-83
Letters of Recommendation (2 folders), 1969-86
London, Ontario talks, 1983-84
Mathematical Association of America Executive Committee, Illinois Section, 1962-63
Mathematical Association of America Visiting Lecturer (3 folders), 1961-66
Mathematical Review editorship, 1949
Mathematics-Engineering Liaison Committee, 1968
Megginson, Robert E. (2 folders), 1982-83
Thesis, 1984
Notes on amenable semigroups ( 2 folders)
Notes--"book queries"
Notes, mathematical and travel
Notes on number theory
Outlines of talks, 1955, 1962-84
Paterson, Alan L. T., 1976-84
Phone numbers
Photograph, 42nd Summer Meeting, Mathematical Organizations of America, 1936
Reprint Requests, 1958-85
Retirement Papers, Frances and Mahlon Day (2 folders), 1967, 1972-85
Box 8:
Rockford College, Journals Correspondence, 1983-84
Schäffer, Juan J., 1977-78
Science fiction magazine collection, inventory of, ca. 1946
Smith, Mark, 1977-80
Staff Information--salaries, promotion, 1963
Subcommittee on Student Conduct for Graduate Students, 1977-79
Thesis abstract, "Positive extension of operators"
Tomita Scratch Paper, 1957
Translation, Naimark, 1950s
Sitnikov, early 1950s
Uhl, J. J. lecture, notes
University of Illinois Committee on School Mathematics Board, 1964-65
Vancouver-Edmonton Talks, 1985-86
Zariski, Oscar, Colloquium Lectures, Abstract Algebraic Geometry, Sept. 1947
Zelazny, Anthony. 1985-86
Reprints
Alexander, Ralph
Arazy, Jonathan
Baer, Reinhold
Bartle, Robert G.
Berg, I. D.
Berkson, Earl
Bogdanowicz, Witold M.
Boone, William W.
Browder, Felix E.
Burkholder, D. L.
Cairns, Stewart S.
Chen, Kuo-Tsai

Chou, Ching
Cohen, Jozef
Cohen, Paul J.
Cudia, Dennis F.
Diaz, J. B.
Dor, Leonard E.
Francis, George K.
Granirer, Edmond E.
Gray, John W.
Box 9:
Reprints (cont.)
Haken, Wolfgang
Hamstrom, Mary-Elizabeth
Henson, C. Ward
Hochster, M.
Jerrard, R. P.
Jogdeo, Kumar
Kadison, Richard V.
Kaufman, Robert
Klee, Victor
Lau, Anthony To-Ming
Loeb, Peter A.
Lotz, Heinrich P.
Marti, J. T.
Milnes, Paul
Osborn, Howard
Peck, N. T.
Porta, Horacio
Pu, Lena Chang
Rajagopalan, M.
Rao, Chivukula R.
Reznick, Bruce
Riddle, Lawrence H.
Roberts, James W.
Rosenthal, Haskell P.
Rothman, Neal J.
Rubel, Lee A.
Ruston, A. F.
Saab, Elias
Saab, Paulette
Sato, Ryotaro
Singer, Ivan
Box 10:
Reprints (cont.)
Stolarsky, Kenneth B.
Takeuti, Gaisi
Tomita, Minoru
Tulcea, A. Ionescu

Tulcea, C. Ionescu
Uhl, J. J., Jr.
Wetzel, John E.
Wilde, Carroll O.
Zippin, M.
Box 11:
Grade Books, 1942-83
Box 12:
(Materials in Boxes 12 and 13 received 9/4/1996)
Albert, A. A.
"The Finite Planes of Ostrom," 1962
"Quadratic Forms Permitting Composition," 1962
Banach Space Conference, Kent University, Notes, 1987
Conference on Measure Theory and Its Application, Northern Illinois University, 1980
Correspondence, 1961, 1963, 1965, 1987, 1989-1990
Distance Sums Bibliography
"Duality Between Smooth and Rotund Spaces," Lecture, 1987
Freyd, Peter
Abelian Categories, ( 2 folders), 1962
"Functor Categories and their Application to Relative Homology"
Kaplansky, Irving
"Fields"
"Homological Dimension of Rings and Modules"
Kelly, G. M., "Tensor Products in Categories"
Krien and Rutman, "Linear Operators Leaving Invariant a Cone in a Banach Space," notes
LAS Language Requirement Letter Rough Drafts
MacLane, Saunders
"The Axioms for Set Theory," Math 261
"Categorical Algebra," 1963
"Group Extensions by Primary Abelian Groups," 1960
"Natural Associativity and Commutativity"
Manuscripts by Day
"Cluster Points of Subsequences," 1944
"Convergence and Order," ("final copy"), 1984
"An Ergotic Theorem for Bounded Groups"
"I-P Potpourri"
"Means for the Bounded Functions and Ergodicity of the Bounded Representations of Semi- Groups," 1950
"Measure Theory, Integration Theory, Abstract Differentiation..."
"Moore-Smith Convergence," 1987
"Oriented Systems," 1943
"Polygons Circumscribed about Closed Convex Curves," 1948
"Some Characterizations of Inner-Product Spaces," 1947
"Strict Convexity," 1954
Unknown Manuscript Editing
"Yosemite James and the Towers of Doom! or The Quasireflexive Space of R. C. James and its Tower of Conjugate Spaces"
Mapping Constants

Math 221, Notes
Math 303, Brown University, Summer 1945
Course Notes
Student Exams
Student Exams, Papers, and Course Cards
Math 442, readings and exams
Math Notes, University of Chicago
Math Problem Pages
Mathematical Association of America, 1971
Mathematical Reviews, 1986-1991
1979-1985, no date
Tianxuan Miao
"Modules, Diagrams and Functions"

## Box 13:

Normal Rings, notes
Notation for Set Theoretical and Logical Operations
Notebooks, Math 557, University of Chicago, ca. 1961
Notes, Mathematical
Project ALP, Unclassified Working Papers, 1961
William Lowell Putnam Mathematical Competition Questions, 1951
Referee's Reports, 1987-1990
1980-1986
Research Grant Applications, 1989
Rings, Notes and Outlines
Saab, Elias, 1988
Semi-Simple Lie Algebra, 1962
Serre, Jean-Pierre, Lie Algebras and Lie Groups, 1964
Systems of Linear Equations and Gaussian Elimination
Theses
Bouwer, I. Z., "Standard Representations of Simple Lie Algebras," 1964
Day, M. M., "Infinite Dimensional Representations of A ${ }_{1}$," 1967
Lemire, Frances W., "Infinite Dimensional Irreducible Representations of Simple Lie
Algebras," 1967
Megginson, Bob, "The Semi-Kladec-Klee Condition and Nearest-Point Properties of Sets in Normed Linear Spaces," 1984
Thesis pages
Translations by Day
Gel'fand and Naimark, " Unitary Representations of Semi-Simple Lie Groups," 1950
Silov, G. E., "Homogenous Ring Functions"
Silov, G. E., " On the Decomposition of a Commutative Normed Ring Into a Direct Sum of Ideals," 1954
Smirnov, N. V., "Limit Distribution for the Terms of a Variational Series," 1957
Srieder, Yu. A., "Structure of the Maximal Ideals in Rings of Measures with Convolution,"
Translation Editing, no date
Visiting Lecturer Materials
Unitary Spaces and Operator Algebras
Wong, James C. S.

Box 14:
Correspondence
General, 1948-65 (three folders)
Appointments, 1961
Springer-Verlag re: Normed Linear Spaces, 1960-72, 1970-71
University of Illinois, Business, 1950-54
Letters of Recommedation, 1963-80 (four folders)
Mathematical Association of America
American Association for the Advancement of Science, 1969-71
Committee on Doctor of Arts in Mathematics, 1958-63
Personal File (includes referee's reports), 1956-70 (three folders) Publications

Reprints, 1955-1980
Arithmetic of Ordered Systems, 1945
Amenable Semigroups , 1956
Normed Linear Spaces, 1958, 1962.
Referree's Reports, 1945-69 (five folders)
Self-Improvement Literature
Cooking, ca. 1950.
Sexual Health, ca. 1950.
Youth-Boy Scouts, ca. 1950.
Box 15 (Oversize):
42nd Summer Meeting of Mathematical Organizations of America, 1935

