

Department of Physics Historical records 10650114

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Describing Archives: A Content Standard

Rare Book and Manuscript Library

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Table of Contents

Summary Information	3
Historical Note	3
Summary	. 6
Arrangement	6
Administrative Information	7
Related Materials	. 8
Controlled Access Headings	9
Collection Inventory	10
Series I: Columbia University Department of Physics	10
Series II: Individuals	11
Series III: Publications	14

Summary Information

Repository: Rare Book and Manuscript Library

Columbia University. Department of Physics **Creator:**

Title: Department of Physics Historical records

ID: 10650114

UA#0200 ID:

Date [inclusive]: 1862-1997

> Date [bulk]: 1906-1957

> > **Physical**

2.29 linear feet 5 document boxes, 1 half-size document box

Description:

Language of the

Material:

English, Chinese, Latin, French, German.

Abstract: This collection of various historical materials collected

> by the Columbia University Physics Department includes photographs and negatives of faculty members, faculty biographical information, images of related buildings and grounds, correspondence between faculty members and others, publications, information concerning guest lecturers in the department, as well as materials used in exhibitions and

presentations depicting the department's history.

Preferred Citation

Identification of specific item; Date (if known); Department of Physics Historical Records; Box and Folder; University Archives, Rare Book and Manuscript Library, Columbia University Library.

Historical Note

The Department of Physics was formally established in 1892, although the roots of graduate physics can be traced to the opening of the School of Mines in 1864. The department awarded its first PhD to Robert Millikan who was later awarded the Nobel Prize, as have many faculty

[^] Return to Table of Contents

and graduates of the department, establishing, from very early on, a prestigious tradition of physics education and research at Columbia University.

^ Return to Table of Contents

Historical Note

The central figure in the early years of the Department was Michael Pupin, who contributed substantially to new discoveries involving X-rays and to the continued understanding and applications of electromagnetism. He served as Department Chair for many years. Under his impressive leadership, the present Pupin Laboratory was completed in 1925 to serve as the home of the Physics Department. After his death in 1935, the building was named for him. The Department still resides in this building.

^ Return to Table of Contents

Historical Note

A few years later, in 1899, the American Physical Association was founded at Columbia, a society that is still very active today, followed by the creation of the Earnest Kempton Adams Fund for Scientific Research. This fund allowed Columbia to invite distinguished scholars, such as Max Planck and H.A. Lorentz, to the University to give lectures.

^ Return to Table of Contents

Historical Note

Over the next few decades, the Department of Physics played a significant role in the development of relativity and quantum mechanics, and the subsequent discoveries made possible with this new understanding of physics.

^ Return to Table of Contents

Historical Note

I.I. Rabi, a Columbia graduate student in the 1920's, was very interested in the new Quantum Mechanics being developed primarily in Europe. After completing his degree, he received a fellowship to spend a few years in European laboratories. On his return to Columbia, he spearheaded successful efforts to put Columbia, and the U.S., at the forefront of scientific research.

^ Return to Table of Contents

Historical Note

In the early to mid-thirties, nuclear physics became wildly popular as fission was theorized and later proved. Wishing to be at the forefront of the nuclear boom, the Department built the Pupin Cyclotron and started smashing atoms. As the U.S. involvement in World War II became a reality, U.S. President Franklin D. Roosevelt requisitioned an atomic bomb, and the Manhattan Project, led by several members of the Department of Physics, was started in the basement of Pupin Laboratory.

^ Return to Table of Contents

Historical Note

After World War II the Columbia Physics Department continued its diverse research in the areas of quantum electrodynamics, microwave techniques, high energy physics, nuclear physics, astrophysics, atomic and condensed matter physics. Notable post-war faculty included James Rainwater, Charles Townes, T.D. Lee, C.S. Wu, and Horst Stormer.

^ Return to Table of Contents

Historical Note

The diversity of scientific opportunities that now exists at Columbia has grown out of a long and distinguished tradition of physics teaching and research. Columbia graduates, along

with many other scientists who spent their formative years here, have gone on to make extraordinary contributions to science as researchers, teachers, and intellectual leaders.

^ Return to Table of Contents

Historical Note

(Material used in this history note was adapted from the Department of Physics History found at the Department's website)

^ Return to Table of Contents

Summary

The material in this collection was primarily collected by Irene Tramm, the Departmental Administrator of the Columbia University Physics Department in the late 1980s and early 1990s, for the creation of a local exhibition on the history of the department, and for information compiled into a publication "A Brief History: The Columbia University Physics Department.".

^ Return to Table of Contents

Summary

It is a random assortment of historical material, consisting of photographs, negatives, faculty and guest lecturer correspondence, biographical materials for some of the faculty, programs from various lecture series given at Columbia, publications, picture postcards, and even a sheet of commemorative postage stamps.

^ Return to Table of Contents

Arrangement

Material is arranged into three series.

^ Return to Table of Contents

Administrative Information

Publication Statement

Rare Book and Manuscript Library

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URL: http://www.columbia.edu/cu/lweb/indiv/rbml/index.html

Revision Description

xml document instance created by Adrien Hilton EAD was imported spring 2019 as part of the ArchivesSpace Phase II migration. Access note changed. Collection now stored offsite. (JR) Folder 8 added to Box 5 (JW). 2014-08-28 2019-05-20 2022-02-11 2023-01-26

Restrictions on Access

This collection is located offsite. You will need to request this material at least three business days in advance to use the collection in the Rare Book and Manuscript Library reading room.

Restrictions on Access

This collection has no restrictions.

Accrual

No additions are expected.

Immediate Source of Acquisition

2013.2014.M146: Source of acquisition--Department of Physics. Method of acquisition--Gift; Date of acquisition--2014.

Ownership and Custodial History

This collection was donated to the University Archives by the Columbia University Physics Department in February, 2014.

Processing Information

Records processed Linda Arthur, SEAS 2014 under the direction of Jocelyn Wilk 2014.

Processing Information

Finding aid written Linda Arthur, SEAS 2014 May 2014.

Processing Information

Finding aid edited Jocelyn Wilk June 2014.

Terms Governing Use and Reproduction

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Related Materials

Selected Related Material -- at Columbia

Central Files, University Archives, Rare Book and Manuscript Library, Columbia University

Selected Related Material -- at Columbia

<u>Historical Biographical Files</u> University Archives, Rare Book and Manuscript Library, Columbia University

Selected Related Material -- at Columbia

<u>Historical Subject Files</u> University Archives, Rare Book and Manuscript Library, Columbia University

[^] Return to Table of Contents

Selected Related Material -- at Columbia

<u>Historical Photograph Collection</u>, University Archives, Rare Book and Manuscript Library, Columbia University

Selected Related Material -- at Columbia

Office of Public Affairs Photograph Collection, University Archives, Rare Book and Manuscript Library, Columbia University

Controlled Access Headings

- Cyclotrons
- Nobel Prizes
- Physics -- Study and teaching
- Los Alamos (Calif.)
- black-and-white photographs
- Commemorative postage stamps
- Correspondence
- negatives (photographs)
- Picture postcards
- Printed Ephemera
- publications (documents)
- Slides (photographs)
- Bethe, Hans A (Hans Albrecht), 1906-2005
- Bjerknes, V (Vilhelm), 1862-1951
- Bragg, William Henry, 1862-1942
- Bragg, William Lawrence, Sir, 1890-1971
- · Bohr, Aage
- Bohr, Niels, 1885-1962
- Cooper, Leon N (Leon Neil), 1930-
- Debye, Peter J. W (Peter Josef William), 1884-1966
- Einstein, Albert, 1879-1955
- Ehrenfest, Paul, 1880-1933
- Fermi, Enrico, 1901-1954
- Fitch, Val L., 1923-2015
- Gell-Mann, Murray
- Hahn, Otto, 1879-1968
- Hallock, William, 1857-1913
- Kusch, Polykarp, 1911-1993
- Lamb, Willis E (Willis Eugene), 1913-2008

[^] Return to Table of Contents

- Langmuir, Irving, 1881-1957
- Lederman, Leon M.
- Lorentz, H. A (Hendrik Antoon), 1853-1928
- Lummer, O (Otto), 1860-1925
- Mayer, Maria Goeppert, 1906-1972
- Millikan, Robert Andrews, 1868-1953
- Pegram, George Braxton, 1876-1958
- Penzias, Arno A.
- Perrin, Jean, 1870-1942
- Planck, Max, 1858-1947
- Pupin, Michael, 1858-1935
- Quimby, Shirley L.
- Rabi, I. I (Isidor Isaac), 1898-1988
- Rainwater, Leo James
- Ramsey, Norman, 1915-2011
- Rubbia, Carlo, 1934-
- Schawlow, Arthur L., 1921-1999
- Schwartz, Melvin, 1932-2006
- Schwinger, Julian, 1918-1994
- Serber, R (Robert)
- Sommerfeld, Arnold, 1868-1951
- Steinberger, J
- Szilard, Leo
- Ting, S. C. C (Samuel Chao-chung), 1936-
- Townes, Charles H
- Urey, Harold Clayton, 1893-1981
- Wick, G. C (Gian Carlo)
- Wien, W (Wilhelm), 1864-1928
- Wu, C. S. (Chien-shiung), 1912-1997
- Yukawa, Hideki, 1907-1981
- American Physical Society
- Columbia University
- Columbia University. Department of Physics
- Columbia University -- Faculty
- Manhattan Project (Organization)

Collection Inventory

Series I: Columbia University Department of Physics, 1905-1992

Scope and Contents

This series contains materials generally associated with activities of the Department of Physics. Materials include exhibition labels, histories of the department, photographs, correspondence, catalogs, event

planning documents, correspondence, and some departmental records. Of particular interest are press releases and photographs concerning the original cyclotron in Pupin and its removal in 1965.

Title/Description	Instances	
American Physical Society, 1930-1980	box 1	
Background Information for Departmental History, 1987-1991	box 1	
Butler Exhibit Labels, 1991	box 1	
The Columbia University Physics Department, A Brief History, 1992	box 1	
Cyclotron-photographs, 1965	box 1	
Department of Physics History Presentation by T.D. Lee, 1991-1992	box 1	
Departmental Nobel Celebration, 1988-1989	box 1	
Nobel Laureates, 1980s	box 1	
Physics Colloquium Paul Forman, 1991	box 1	
Physics Department History Notes by Lucy Hayner	box 5 folder 8	
Scope and Contents		
Collected by Chauncey Olinger from Guy Castle's files on 22 July 1988. Donated to University Archives Fall 2022.		
Quimby PhD's, 1970	box 1	
Sign-out Cards for Physics Dept. Office and Mailbox Keys, 1929-1958	box 1	

[^] Return to Table of Contents

Series II: Individuals, 1862-1997

Scope and Contents

This series consists of materials related to individual faculty members and other individuals with ties to the Department of Physics, usually as a guest lecturer. Materials include original correspondence between prominent physicists from within and outside the Columbia University community, photographs, negatives, notes, and lecture announcements. Files are arranged alphabetically by last name of the individual. Much of the correspondence from these individuals is with Dean George B. Pegram. Of particular interest are two notebooks of George B. Pegram from when he was a student at Columbia in 1899 as well a notebook of lectures by Professor McCullogh as transcribed by Peter A. Jay in 1862. Files containing correspondence have date ranges noted; those with just photographs are almost always undated.

Title/Description	Instances
Aston, F.W., 1922	box 1

Bethe, Hans Albrecht	box 1
Bjerknes, Vilhelm, 1905-1925	box 1
Bohr, Aage	box 1
Bohr, Niels, 1923 1985, 1923, 1985	box 2
Booth, Eugene T.	box 2
Born, Max, 1925-1926	box 2
Bragg, William Henry, 1914	box 2
Bragg, William Lawrence, 1924	box 2
Cooper, Leon N.	box 2
Davis, Bergin Letters from Famous Physicists, 1905-1949	box 2
Debye, Peter J.W., 1924-1925	box 2
Ehrenfest, Paul, 1923-1924	box 2
Einstein, Albert, 1912-1933 1970, 1912-1933, 1970	box 2
Fermi, Enrico, 1935 1954, 1935, 1954	box 2
Fermi, Lawrence, and Rabi at Los Alamos-Photograph, 1945	box 2
Fitch, Val. L.	box 2
Fitch, Val and Rainwater, James, 19531991	box 2
Foreign Lecturers, 1897-1913 undated, 1897-1913, undated	box 2
Gell-Mann, Murray	box 2
Goeppert-May er, Maria	box 2
Hadamard, Jacques, 1911	box 2
Hahn, Otto, 1907	box 2
Hallock, William, 1903-1913	box 2
Hayner, Lucy, 1963	box 2
Heymans, Paul, 1925-1926	box 2
Ihlseng, Magnus C., 1921	box 2
Kusch, Polykarp, 1952-1993	box 2
Lamb, Willis E., 1947-1961	box 2
Langmuir, Irving and Levene, P.A., 1924	box 2
Larmor, Joseph, 1906-1907	box 2
Lawrence, Ernest O., 1935	box 2
Lederman, Leon M.	box 2

Lorentz, Hendrik A., 1906-1907 1922, 1906-1907, 1922	box 2
Lummer, Otto, 1905-1908	box 2
McCulloh (Richard Sears) Lecture Notes by Peter A. Jay, 1862	box 2
Millikan, Robert A., 1912-1916 1992, 1912-1916, 1992	box 2
Pegram, George B Biographical info and photographs, 1947-1959	box 3
Pegram, George BCorrespondence, 1907-1935	box 3
Pegram, George BNotebooks, 1899	box 3
Pegram, George BPostcards, 1897-1914	box 3
Penzias, Arno A.	box 3
Perrin, Jean, 1913	box 3
Planck, Max, 1908-1909	box 3
Pupin, Michael I., 1938-1945	box 3
Quimby, Shirley L., 1930s 1988, 1930s, 1988	box 3
Rabi, Isidor I., 1947-1975	box 3
Rainwater, James,1983	box 3
Ramsey, Norman	box 4
Rubbia, Carlo	box 4
Runge, Carl, 1913	box 4
Schawlow, Arthur L.	box 4
Schwartz, Melvin, 1962-1988	box 4
Schwinger, Julian S., 1978	box 4
Serber, Robert, 1965	box 4
Siegbahn, Manne, 1924-1925	box 4
Sommerfeld, Arnold, 1922-1923	box 4
Steinberger, Jack	box 4
Szilard, Leo, 1945-1987	box 4
Ting, Samuel C.C. (Chao-chung)	box 4
Townes, Charles H., 1954	box 4
Urey, Harold C., 1933-1965	box 4
Weinberg, Steven	box 4
Wien, Wilhelm, 1912-1913	box 4

Wick, Gian Carlo1950-1992	box 4
Wien, Wilhelm ("Willy"), 1954	box 4
Wu, C.S.(Chien-shiung) Biographical Info and Photographs, 1957-1992	box 4
Wu, C.S. (Chien-shiung)-Correspondence, 1992-1997	box 4
Yukawa, Hideki, 1949-1954	box 4
Unidentified Faculty Photographs and Negatives	box 4

[^] Return to Table of Contents

Series III: Publications, 1881-1999

Scope and Contents

This series consists of copies of published books and brochures maintained by the Department of Physics over the years. Some books that came in the original accession have been added to the rare books collection at the Rare Book and Manuscript Library. Books that were found to be housed in other parts of the Columbia Libraries were returned to the Department in summer 2014.

Title/Description	Instances
Addresses after a Dinner tendered to Edward Dean Adams, 1925	box 5
Celebration of the Fiftieth Anniversary of the Pupin Laboratires, 1977	box 5
Department of Physics, Columbia University, 1990s	box 5
Deschanel's Natural Philosophy. By Professor Everett. Part I: Mechanics, Hydrostatistics, and Pneumatics, 1881	box 5
Deschanel's Natural Philosophy. By Professor Everett. Part II: Heat, 1883	box 5
Deschanel's Natural Philosophy. By Professor Everett. Part III: Electricity and Magnetism, 1883	box 5
Deschanel's Natural Philosophy. By Professor Everett. Part IV: Sound and Light, 1883	box 5
Kaogu Xuebao, 1965	box 6
Nueure Problems der Theoretsichen Physik by W. Wien, E.K. Adams Fund Publications, No. 7, 1913	box 6
Physical Laboratory Notes Prepared for the Use of the Students in the School of Mines, Engineering and Chemistry, Columbia University in the City of New York, 1913	box 6

^ Return to Table of Contents