

**Ernst D. Hellinger (1883-1950) Papers, 1906-1975**

**Series 11/3/19/6**

**Boxes 1-2 (including one half-size box)**

**Biography**

Ernst Hellinger was born in Striegau, Silesia, on September 30, 1883. After studying at the University of Heidelberg and the University of Breslau, Hellinger took his PhD in mathematics at the University of Gottingen (where he worked with David Hilbert and Franz Klein) in 1907.

Hellinger taught at Gottingen (1907-1909), Marburg (1909-1914), and Frankfurt (1914-1935). The Nazis removed him from the faculty at Frankfurt in 1936. He joined the faculty at Northwestern as lecturer in Mathematics in 1939. He became a U.S. citizen in 1944. Promoted to professor in 1945, Hellinger became emeritus in 1949. He died March 28, 1950, in Chicago.

Hellinger studied integral equations, infinite systems of equations, real functions, and continued fractions. A type of integral he introduced in his dissertation became known as "the Hellinger integral" and the Hilbert-Hellinger theory of forms in infinitely many variables profoundly influenced mathematical analysis.

**Description of the Series**

The Ernst D. Hellinger Papers fill one and one-half boxes and are arranged in two categories: teaching files and publications. These are preceded by one folder of biographical materials.

The teaching files consist primarily of lecture notes which Hellinger wrote in longhand. The folders of Northwestern lectures and related materials are arranged by course number and, within each folder, chronologically. Lectures given at the Illinois Institute of Technology and the University of Frankfurt on Main comprise one folder each whose contents are arranged chronologically.

The publications include the published version of Hellinger's doctoral dissertation and reprints of nine of his articles.

**Cross Reference:** Additional biographical information on Hellinger can be found in the Department of Mathematics personnel files: Series 11/3/19/2, Box 12, Folder 5, and 11/3/19/3, Box 4, Folders 18 and 19.

**Provenance:** The Ernst Hellinger Papers came to the Northwestern University Archives on December 5, 1988 as Accession 1088-283, through the courtesy of Zita Hayward, Mathematics Library, Northwestern University.

**Restrictions:** None.

**Separations:** None.

**Processor:** William K. Beatty, December, 1988

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**Description of the Addition**

The addition consists of materials acquired by James Rovnyak in the course of his research on Ernst Hellinger, and spans the years 1914-1975. Folders are arranged in chronological order, retaining the categorization and identification supplied by Professor Rovnyak. The two letters from Max Born relating to the early days of quantum mechanics are of special interest. The remainder of the addition consists of lecture notes, contracts and correspondence relating to Hellinger's time at Northwestern University, notes and drafts of scholarly papers, and an anonymous biographical outline.

The James Gregory project is a scholarly paper prepared by Hellinger and Max Dehn, a contemporary and close friend from his days in Frankfurt. A version of this paper was presented at an International Congress (July 4th-5th, 1938; Edinburgh and St. Andrews) held in honor of the 300th anniversary of the birth of Gregory, a 17<sup>th</sup> century Scottish mathematician.

The posthumous documents consist of pieces of correspondence that make reference to Hellinger. Material in German is so noted on the container list.

The 11 folders in this addition were added to the 5 folders in Box 2 of the original series.

**Provenance:** This addition came to the Northwestern University Archives on July 23, 1998 as Accession #98-133, through the courtesy of James Rovnyak, Department of Mathematics, University of Virginia.

**Restrictions:** None. Separations: None.

**Processor:** Eli Bolin; July, 1998

**Scanned and Reformatted by:** Francine Keyes, March 2005.

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**Container List**

<b><u>Box</u></b>	<b><u>Folder</u></b>	<b><u>Title</u></b>	<b><u>Date</u></b>
1	1	Biographical Materials	1941-1950
		<b>Teaching Files</b>	
	2	Northwestern University - Mathematics C26	1948
	3	Northwestern University - D13, Part I	1939-1942
	4	Northwestern University - D13, Part I	1945-1947
	5	Northwestern University - D13, Part II	1939-1942
	6	Northwestern University - D13, Part II	1945-1948
	7	Northwestern University - D15	1948
	8	Northwestern University - D20	1948
	9	Northwestern University - D21, Part I	1939-1941
	10	Northwestern University - D21, Part I	1946
	11	Northwestern University - D21, Part I	1949
	12	Northwestern University - D21, Part II	1939-1941
	13	Northwestern University - D21, Part II	1947
	14	Northwestern University - D21, Part II	1949
	15	Northwestern University - D21, Part III	1947
	16	Northwestern University - D31	1940,1946
	17	Northwestern University - D52	1947
	18	Illinois Institute of Technology	1949-1950
2	1	University of Frankfurt on Main	1924-1933
		<b>Publications</b>	
	2	Doctoral Dissertation	1907
	3	Reprints	1906-1910
	4	Reprints	1913-1914
	5	Reprints	1922,1939,1943
	6	University of Frankfurt, Contracts and Dismissal [German]	1914-1944
	7	Notes: Seminar on Quantum Mechanics [German]	1920s
	8	Correspondence, Max Born [German]	1925-1926
	9	Notes: Seminar on Quantum Mechanics [German]	1936
	10	Notes: Dehn-Hellinger Project on James Gregory [English/German]	1938-1942
	11	Northwestern University, Contracts	1939-1948
	12	Notes: Dehn-Hellinger Project on James Gregory - (Draft)	ca. 1942
	13	Correspondence, General [English/German]	1950-1975
	14	Manuscript Notes, Doctoral Dissertation [German]	n.d.
	15	Notes, Miscellaneous	n.d.
	16	"The Early Life and Times of E.D. Hellinger," vol. I	n.d.