# Finding Aid to The HistoryMakers ® Video Oral History with Floyd Williams

### Overview of the Collection

**Repository:** The HistoryMakers®1900 S. Michigan Avenue Chicago, Illinois 60616

info@thehistorymakers.com www.thehistorymakers.com

Creator: Williams, FLoyd L.

Title: The HistoryMakers® Video Oral History Interview with Floyd Williams,

Dates: October 8, 2012

Bulk Dates: 2012

**Physical Description:** 5 uncompressed MOV digital video files (2:27:56).

**Abstract:** Mathematician and math professor Floyd Williams (1939 - ) Williams was interviewed

by The HistoryMakers® on October 8, 2012, in Boston, Massachusetts. This collection is

comprised of the original video footage of the interview.

**Identification:** A2012 215

**Language:** The interview and records are in English.

# Biographical Note by The HistoryMakers®

Research professor and mathematician Floyd Leroy Williams was born on September 20, 1939 in Kansas City, Missouri. Born into and raised in an impoverished environment, his mother was a constant source of encouragement. She reminded him not to complain about their situation, but rather to maintain faith in God and always work hard. Ironically, as a high school student Williams excelled in music rather than mathematics. One week prior to graduating high school he was offered a scholarship from Lincoln University of Missouri in Jefferson City to study music. During his sophomore year, Williams was fascinated by Albert Einstein's Theory of Relativity and eventually became fully immersed in the study of mathematics.

In 1962, Williams graduated from Lincoln University with his B.S. degree in mathematics. He went on to receive advance degrees in mathematics from Washington University in St. Louis, earning his M.S. degree and Ph.D. degree in 1965 and 1972, respectively. His doctoral thesis was in the field of Lie Theory, a particular branch of mathematics that focuses on symmetry. Williams has worked in this field for the past twenty years and recently has begun to investigate mathematical physics.

From 1972 to 1975, Williams worked as a lecturer and instructor at Massachusetts Institute of Technology as well as an associate instructor at the University of California-Irvine. He joined the faculty at the University of Massachusetts-Amherst in 1975 as an assistant professor. In 1978, he was promoted to associate professor and since 1984 he has been a full professor. Williams was awarded a National Science Foundation Major Research Instrumentation grant in 1983 to continue his research.

Williams is internationally renowned for his pioneering research in Lie Theory and mathematical physics. He served as visiting professor at a number of universities across the United States and the world, including the State University of New York-Stonybrook; Sophia University in Tokyo, Japan; the State Technical University in St. Petersburg, Russia; and the Institute of Theoretical Physics in Sao Paolo, Brazil. Williams' scholarship is prolific, and his work has appeared in scholarly journals such as *Topics in Quantum Mechanics* and *Mathematical Methods in Physics*. Since 2005, he served as Professor Emeritus at the University of Massachusetts-Amherst.

Floyd L. Williams was interviewed by *The HistoryMakers* on 10/08/2012.

# **Scope and Content**

This life oral history interview with Floyd Williams was conducted by Larry Crowe on October 8, 2012, in Boston, Massachusetts, and was recorded on 5 uncompressed MOV digital video files. Mathematician and math professor Floyd Williams (1939 - )

### Restrictions

### **Restrictions on Access**

Restrictions may be applied on a case-by-case basis at the discretion of The HistoryMakers®.

#### **Restrictions on Use**

All use of materials and use credits must be pre-approved by The HistoryMakers®. Appropriate credit must be given. Copyright is held by The HistoryMakers®.

### **Related Material**

Information about the administrative functions involved in scheduling, researching, and producing the interview, as well as correspondence with the interview subject is stored electronically both on The HistoryMakers® server and in two databases maintained by The HistoryMakers®, though this information is not included in this finding aid.

### **Controlled Access Terms**

This interview collection is indexed under the following controlled access subject terms.

#### Persons:

Williams, FLoyd L.

Crowe, Larry (Interviewer)

Hickey, Matthew (Videographer)

### Subjects:

African Americans--Interviews Williams, FLoyd L.--Interviews

# Organizations:

HistoryMakers® (Video oral history collection)

The HistoryMakers® African American Video Oral History Collection

University of Massachusetts, Amherst

# Occupations:

Mathematician

# **HistoryMakers® Category:**

ScienceMakers

### **Administrative Information**

### **Custodial History**

Interview footage was recorded by The HistoryMakers®. All rights to the interview have been transferred to The HistoryMakers® by the interview subject through a signed interview release form. Signed interview release forms have been deposited with Jenner & Block, LLP, Chicago.

### **Preferred Citation**

The HistoryMakers® Video Oral History Interview with Floyd Williams, October 8, 2012. The HistoryMakers® African American Video Oral History Collection, 1900 S. Michigan Avenue, Chicago, Illinois.

### **Processing Information**

This interview collection was processed and encoded on 5/30/2023 by The HistoryMakers® staff. The finding aid was created adhering to the following standards: DACS, AACR2, and the Oral History Cataloging Manual (Matters 1995).

# **Other Finding Aid**

A Microsoft Access contact database and a FileMaker Pro tracking database, both maintained by The HistoryMakers®, keep track of the administrative functions involved in scheduling, researching, and producing the interview.

# **Detailed Description of the Collection**

### Series I: Original Interview Footage

Video Oral History Interview with Floyd Williams, Section A2012\_215\_001\_001, TRT: 1:29:33 ?

Floyd Williams talks about his family background. His mother, Lee Edna
Anderson, was born in October, 1921 in Kansas City, Kansas. Williams' mother
and family have musical talents. His mother sang and a number of his uncles and

cousins played instruments and were involved in bands. In the later part of her life, Williams' mother became a real estate broker. His biological father, Floyd Williams, who was absent from his life, was also a musician. His stepfather, Lawrence Williams, married his mother, who had five children at the time, and raised him for the majority of his life. His mother and stepfather were together for about thirty-five years.

Affirmative action programs.

Video Oral History Interview with Floyd Williams, Section A2012 215 001 002, TRT: 2:29:17?

Floyd Williams spent a year, during his mother's absence, in foster care when he was around three years old. When she returned they lived in a Kansas City, Missouri ghetto. Williams describes the impoverished living conditions of his childhood, as well as his interests in music. Williams attended Benjamin Banneker Elementary School, R.T Coles Junior High School, and Manual High and Vocational School. His only exposure to mathematics in school, prior to college, was basic math. His primary interests were with art and music, and he played the trumpet and the piano. He described his interest in music as well as his experiences and mentors in high school.

Affirmative action programs.

Video Oral History Interview with Floyd Williams, Section A2012 215 001 003, TRT: 3:31:41?

Floyd Williams graduated from Manual High and Vocational School in 1957. He credits his high school mentor, Dr. Wheeler, as being the only person in his life at the time that encouraged him to go to college. Williams received a music scholarship to attend Lincoln University, in Jefferson City, Missouri. Williams studied music his first two years and became interested in mathematics later, after being introduced to Albert Einstein's theory of relativity. He took his first algebra course as a junior in college, and progressed from that point forward. Williams graduated from Lincoln University with his B.S. degree in math and physics in 1962. He attended Washington University in St. Louis, Missouri, where he spent ten years working on his Ph.D. degree in mathematics. He also described his struggles during graduate school. Williams graduated from Washington University in 1972, and shortly thereafter, he was hired as a lecturer at the Massachusetts Institute of Technology.

Affirmative action programs.

Video Oral History Interview with Floyd Williams, Section A2012 215 001 004, TRT: 4:29:01?

Floyd Williams joined the faculty of the University of Massachusetts, at Amherst, Massachusetts, in 1975. While serving as professor, he maintained his interest in music. He played with Max Willis, Archie Shepp, and with John

Root's orchestra. In 1990, he served as a visiting professor at Sophia University in Tokyo, Japan. Williams discusses the difference in attitudes towards STEM education in Japan and the U.S. He also served as visiting professor at State Technical University in St. Petersburg, Russia and the Institute of Theoretical Physics in Sao Paulo, Brazil. Williams has published over 90 papers and is renowned for his work with Lie Theory and in mathematical physics. In 2006, Williams was named professor emeritus at the University of Massachusetts.

Affirmative action programs.

Video Oral History Interview with Floyd Williams, Section A2012\_215\_001\_005, TRT: 5:28:24?

Floyd Williams describes his being called into the ministry. Williams counsels children, prisoners, and senior citizens in nursing homes. He discussed his hopes and concerns for the African American community and reflects upon his legacy. As someone who struggled with mathematics himself, Williams offers his perspective about the deficiencies in the quality of mathematical education in the United States. Finally, he talks about his family and describes his family photos.

Affirmative action programs.

Affirmative action programs.

Affirmative action programs.

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