

# Finding Aid to The HistoryMakers® Video Oral History with Anthony Johnson

---

## Overview of the Collection

<b>Repository:</b>	The HistoryMakers®1900 S. Michigan Avenue Chicago, Illinois 60616 info@thehistorymakers.com www.thehistorymakers.com
<b>Creator:</b>	Johnson, Anthony M., 1954-
<b>Title:</b>	The HistoryMakers® Video Oral History Interview with Anthony Johnson,
<b>Dates:</b>	July 25, 2013
<b>Bulk Dates:</b>	2013
<b>Physical Description:</b>	6 uncompressed MOV digital video files (2:43:37).
<b>Abstract:</b>	Physicist Anthony Johnson (1954 - ) , a 1992 Charter Fellow of the National Society of Black Physicists, became the first African American elected as president of the Optical Society of American in 2002. Johnson was interviewed by The HistoryMakers® on July 25, 2013, in Baltimore, Maryland. This collection is comprised of the original video footage of the interview.
<b>Identification:</b>	A2013_167
<b>Language:</b>	The interview and records are in English.

---

## Biographical Note by The HistoryMakers®

Physicist Anthony M. Johnson was born on May 23, 1954 in Brooklyn, New York to James W. Johnson and Helen Y. Johnson. He initially wanted to study math or chemistry in college until a teacher at Samuel J. Tilden High School in Brooklyn, New York introduced him to physics. Johnson attended the Polytechnic Institute of New York where he graduated magna cum laude with his B.S. degree in physics in 1975. He went on to earn his Ph.D. degree in physics from the City College of New York in 1981. Johnson conducted his thesis research at Bell Laboratories in Murray Hill, New Jersey with support from the Bell Labs Cooperative Research Fellowship Program.

Upon graduation, Johnson was hired at Bell Laboratories in Holmdel, New Jersey as a member of the technical staff in the Quantum Physics and Electronics Research Department. In 1988, Johnson was promoted as a distinguished member of Bell Labs technical staff; and, in 1990, he became part of the Photonic Circuits Research Department. Johnson joined the faculty of the New Jersey Institute of Technology in 1995 where he served as chairperson, distinguished professor of applied physics, and professor of electrical and computer engineering. In 2003, Johnson was named as Director of the Center for Advanced Studies in Photonics Research (CASPR). He was then appointed as professor of physics, computer science, and electrical engineering at the University of Maryland-Baltimore County (UMBC) where his research focused on ultrafast optics and optoelectronics.

Johnson has authored two book chapters, over seventy scholarly articles, and he has been credited with four U.S. Patents. In addition, he served as Editor-in-Chief of the journal *Optics Letters* from 1995 to 2001. Between 1991 and 2000, Johnson was elected as a Fellow into several academic and professional organizations, including the Optical Society of America (OSA), the American Physical Society (APS), the American Association for the Advancement of Science (AAAS), and the Institute of Electrical and Electronics Engineers (IEEE). He was a 1992 Charter Fellow of the National Society of Black Physicists (NSBP). In 1993, Johnson received the Distinguished Alumnus Award from the Polytechnic University; and, in 1994, he was honored with the Black Engineer of the Year Special Recognition Award. The American Physical Society presented Johnson with the Edward A. Bouchet

Award in 1996. In 2002, Johnson became the first African American to serve as president of the Optical Society of America.

Johnson is married to Dr. Adrienne S. Johnson. They have three adult children, Kimberly, Justin, and Brandon.

Anthony M. Johnson was interviewed by *The HistoryMakers* on May 24, 201

---

## Scope and Content

This life oral history interview with Anthony Johnson was conducted by Larry Crowe on July 25, 2013, in Baltimore, Maryland, and was recorded on 6 uncompressed MOV digital video files. Physicist Anthony Johnson (1954 - ), a 1992 Charter Fellow of the National Society of Black Physicists, became the first African American elected as president of the Optical Society of American in 2002.

---

## 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:

Johnson, Anthony M., 1954-

Crowe, Larry (Interviewer)

Hickey, Matthew (Videographer)

### Subjects:

African Americans--Interviews

Johnson, Anthony M., 1954- --Interviews

African American physicists--Interviews.

---

## **Organizations:**

HistoryMakers® (Video oral history collection)

---

The HistoryMakers® African American Video Oral History Collection

---

## **Occupations:**

Physicist

---

## **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 Anthony Johnson, July 25, 2013. 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 Anthony Johnson, Section A2013\_167\_001\_001, TRT: 1:29:21  
?

Anthony Johnson slates his interview. Johnson was born on May 23, 1954 in Brooklyn, New York. His mother, Helen Yvonne Weaver, was born on July 2, 1934 in High Point, North Carolina. She later moved to Brooklyn and worked as a buyer at the Abraham and Strauss department store. Johnson's father, James Weldon Johnson[not the well known writer], was born in Brooklyn on November 22, 1934. His mother, Mattie Gripper, was originally from High Point and his father, Theodore Roosevelt Johnson, was a landlord in Brooklyn. Johnson's father was a bus driver for the New York City Metropolitan Transit Authority. Johnson's two younger brothers, Jan and Gerard, also work for the Transit Authority. Johnson became interested in science early in his life but it was not until eleventh grade that he decided to focus on physics, which was due, in part, to one of his high school teachers.

African American families--New York (State)--Brooklyn.

African American mothers--North Carolina.

African American fathers--New York (State)--Brooklyn.

New York (State). Metropolitan Transportation Authority--Employees.

Physics.

Mentoring in education.

Video Oral History Interview with Anthony Johnson, Section A2013\_167\_001\_002, TRT: 2:29:36  
?

Anthony Johnson talks about his schools in the Bedford-Stuyvesant neighborhood in Brooklyn, New York. Johnson remembers the assassination of Dr. Martin Luther King Jr. and when an astronaut was first put on the moon. He also describes his interest in science and science fiction as a child and teenager. In high school Johnson decided to obtain a Ph.D. degree in physics. His family supported his decision and his physics teacher, Mr. Harnik, encouraged him to attend the Polytechnic Institute of Brooklyn, which is now the Polytechnic Institute of New York. Johnson graduated from Tilden High School in 1971 and attended the Polytechnic Institute of Brooklyn. During his junior year his professor, Dr. Donald Scarl, encouraged him to apply to the Bell Laboratories summer program and Johnson was accepted. In 1974, Johnson spent a summer at Bell Laboratories doing research in the field of lasers with Dr. David Austin.

Education--New York (State)--Brooklyn.

Childhood--New York (State)--Brooklyn.

Physics.

Mentoring in education.

Polytechnic University (Brooklyn, New York, N.Y.).

Bell Telephone Laboratories.

Video Oral History Interview with Anthony Johnson, Section A2013\_167\_001\_003, TRT: 3:28:44  
?

Anthony Johnson describes his decision to work with Dr. David Austin during his 1974 undergraduate summer at Bell Laboratories. His research involved using light for high speed switching of electronic circuits. From this research, a paper resulted, 'Microwave Switching by Picosecond Photoconductivity,' which was published in the 'IEEE Journal of Quantum Electronics.' Johnson also used this research as his bachelor's thesis. In 1975, Johnson graduated from the Brooklyn Polytechnic Institute in Brooklyn, New York and as married the same

year. Johnson was accepted into the graduate school of the City College of New York with a Bell Laboratories Fellowship, and so his doctoral research was at Bell Laboratories. Johnson's doctoral thesis involved photoconductivity in amorphous silicate, which had potential for high speed electrical measurements. He obtained his Ph.D. degree in 1981 and was hired by Bell Laboratories and worked at its complex in Holmdel, New Jersey.

Bell Telephone Laboratories.

Microelectromechanical systems.

Photoconductivity.

Polytechnic University (Brooklyn, New York, N.Y.).

Marriage.

City University of New York.

Video Oral History Interview with Anthony Johnson, Section A2013\_167\_001\_004, TRT: 4:31:25  
?

Anthony Johnson describes his research at Bell Laboratories, which include compressing light pulses and the optical wave breaking of pulses in optical fibers. He also obtained four patents while at Bell Laboratories. He reflects on his career at Bell Laboratories and the importance of its affirmative action program. In 1995, Johnson left Bell Laboratories to become a professor and department chair at the New Jersey Institute of Technology in Newark, New Jersey. Johnson talks about his involvement with different professional societies, including the Optical Society of America, where he served as vice president in 2000 and president in 2002. Johnson Also discusses the low number of African American graduate students in physics and the challenges they face.

Bell Telephone Laboratories.

Laser pulses, Ultrashort.

Optical fibers.

Affirmative action programs.

New Jersey Institute of Technology.

Optical Society of America.

Minorities in physics.

Video Oral History Interview with Anthony Johnson, Section A2013\_167\_001\_005, TRT: 5:29:28  
?

Anthony Johnson describes his transition from the New Jersey Institute of Technology to the University of Maryland, Baltimore County (UMBC). Johnson became a professor at UMBC and director of the Center for Advanced Studies in Photonics Research (CASPR) in 2003. He also became a deputy director of the Mid-InfraRed Technologies for Health and The Environment (MIRTHE) center, and he talks about the work research center is doing on mid-infrared lasers. Johnson also discusses his research on measuring light and the non-linearity of fibers. He describes the quantum cascade laser and the limitations of short pulses as well as reflects on the future of lasers.

University of Maryland, Baltimore County.

Photonics--Research.

Infrared technology.

Lasers--Research.

Laser pulses, Ultrashort.

Video Oral History Interview with Anthony Johnson, Section A2013\_167\_001\_006, TRT: 6:15:03  
?

Anthony Johnson describes the minority programs and the physics department at the University of Maryland, Baltimore County in Baltimore, Maryland. He talks about his wife, Adrienne Johnson, and his children, Kim, Justin, and Brandon. He also comments on the importance of his parents' encouragement of his studies. Johnson shares his hopes and concerns for the African American community. He also reflects upon his legacy and how he would like to be remembered.

Minorities in physics.

University of Maryland, Baltimore County.

African American families.

Reminiscing.