

Biographical Description for The HistoryMakers® Video Oral History with Carlos Handy

PERSON

Handy, Carlos , 1950-

Alternative Names: Handy, Carlos , 1950-;

Life Dates: October 18, 1950-

Place of Birth: Havana, Cuba

Residence: Pearland, Texas

Occupations: Research Physicist; Physics Professor

Biographical Note

Physics professor and mathematical physicist Carlos R. Handy was born in Havana, Cuba on October 18, 1950 to William C. Handy, Jr. and Lenore. He is the grandson of William Christopher Handy, known in early twentieth-century Americana as the “Father of the Blues.” Handy grew up in New York City and attended George Washington High School where he was a top math student. Since childhood Handy always wanted to be an astronomer, and was advised at an early age that a strong foundation in physics was an essential prerequisite to becoming an astrophysicist. After graduating from Columbia College in 1972 with his B.A. degree in physics, Handy enrolled at Columbia University and was awarded his M.A. degree in physics in 1975 and his Ph.D. degree in theoretical physics in 1978. For his doctoral thesis, Handy developed a new formulation for understanding how to relate different non abelian gauge field theories to one another. He did this on his own, challenging the methods previously suggested by his advisors.

Handy worked as a postdoctoral research associate at Los Alamos National Laboratory between 1978 and 1981, focusing on the use of moment representations to relate large scale to local scale features of strong coupling problems. A related approach to this led to Wavelet analysis, as developed by others. Handy was hired by Clark Atlanta University as an associate

professor of physics in 1983. During his tenure, he received funding from the National Science Foundation, which led to his discovery of the Eigenvalue Moment Method (EMM) technique, a method for calculating the ground state energy through the generation of converging lower and upper bounds to the physical value. This combined the classic Moment Problem in pure mathematics, moment equation representations for the quantum Schrödinger equation, and linear programming analysis (techniques common to industrial engineering).

With a substantial grant from NSF in 1991 Handy established the Center for Theoretical Studies of Physical Systems at Clark Atlanta University, a research and student mentoring center. Throughout his career Handy has published numerous articles. The most recent was an extension of EMM to determining the symmetry breaking regime of an important pseudo-hermitian system, and application to Regge pole scattering analysis in atomic and molecular physics. Handy left Clark Atlanta University in 2005, and became head of the physics department at Texas Southern University where he assumed full responsibility for the development of the physics program and the training of its graduate students. His concerns include the need for modern physics education facilities and students' early mastery of advanced calculus. Handy lives with his wife Maribel in Pearland, Texas.

Carlos Handy was interviewed by The HistoryMakers on 08/17/2012.

Related Entries

Handy, Elizabeth [GRANDCHILD**OF**]
Grandmother (P)

Cartaya, Rafaela Villar [GRANDCHILD**OF**]
Grandmother (M)

Cartaya, Floro [GRANDCHILD**OF**]
Grandfather (M)

Handy, Irene [SIBLING**OF**]
Sibling

Handy, William C. [GRANDCHILD**OF**]
Grandfather (P)

Cartaya Villar, Leonor Maria [CHILD**OF**]
Mother

Handy, Jr., William C. [CHILD**OF**]
Father

Columbia University [STUDENT**OF**]

[from ? to 1978]

Ph.D.

George Washington High School [STUDENTOF]

[from ? to 1968]

Diploma

Columbia University [STUDENTOF]

[from ? to 1975]

M.A.

Columbia University [STUDENTOF]

[from ? to 1972]

B.A.

Columbia University [STUDENTOF]

[from ? to 1976]

M. PH.

Los Alamos National Laboratory [STUDENTOF]

[from ? to 1981]

Post Ph.D.

Los Alamos National Laboratory [EMPLOYEEOF]

[from 1978-10 to 1981-06]

Postdoctoral Fellow

Clark Atlanta University [EMPLOYEEOF]

[from 1983 to 2005]

Professor

Texas Southern University [EMPLOYEEOF]

[from 2005 to ?]

Department Chair: Physics

AMAF Industries [EMPLOYEEOF]

[from 1981-06 to 1983-01]

Research Staff

American Physical Society [MEMBEROF]

Chair of Minority Committee in Physics and the Edward Bouchet Award

National Society of Black Physicists [MEMBEROF]

Member

National Society of Hispanic Physicists [MEMBEROF]

Member