



William D. Phillips

Dr William D. Phillips is a Nobel Prize-winning physicist and a visiting Professor of Physics at Morgan State University. Dr Phillips is also a Research Fellow at the National Institute of Standards and Technology (NIST) and a Professor of Physics at the University of Maryland, College Park's Joint Quantum Institute.

Dr Phillips earned his Ph.D in Physics at Massachusetts Institute of Technology, Cambridge, MA.

Throughout his career, Dr Phillips has developed techniques for high-precision measurements of electrical, optical and quantum phenomena which have aided the study of the fundamental physical constants of nature. NIST's Laser Cooling and Trapping Group, founded by Dr Phillips, has developed some of the most important techniques and technologies for using lasers to trap and cool atoms to as low as a millionth of a degree above absolute zero, making it possible to study a variety of quantum behaviors that were previously out of reach. These methods, now used by thousands of scientists worldwide, have a wide range of important applications including, but not limited to, atomic clocks, GPS navigation, quantum simulations and quantum computing.

At Morgan State University, Dr Phillips has established the "Morgan-Oxford" Mentoring Program for freshmen physics majors together with Dr Charles Clark of the University of Maryland, College Park's Joint Quantum Institute and Dr Angela Hight-Walker from NIST.

Dr Phillips was awarded the Nobel Prize in Physics in 1997 for "for development of methods to cool and trap atoms with laser light". The prize was shared with Dr Steven Chu, former U.S. Energy Secretary and Dr Claude Cohen-Tannoudji from France.

He is a member of both the U.S. National Academy of Sciences and the Vatican's Pontifical Academy of Sciences.