

Dr. John M. Martinis

John M. Martinis attended the University of California at Berkeley from 1976 to 1987, where he received two degrees in Physics: B.S. (1980) and Ph.D. (1987). His thesis was a pioneering demonstration of quantum-bit states in superconductors. After completing a post-doctoral position at the Commissariat Energie Atomique in Saclay, France, he joined the Electromagnetic Technology division at NIST in Boulder. At NIST he developed a new fundamental electrical standard based on counting electrons, and invented microcalorimeters based on superconducting sensors for x-ray microanalysis and astrophysics measurements. In 2004 he moved to the University of California, Santa Barbara where he currently holds the Worster Chair in experimental physics. At UCSB, he has continued work on quantum computation, demonstrating a variety of new quantum devices and capabilities. Along with Andrew Cleland, he was awarded in 2010 the AAAS science breakthrough of the year for an experiment showing the first quantum behavior of a mechanical oscillator. In 2014 he was awarded the London Prize for low-temperature physics research. In 2014 he joined the Google quantum-AI team, and now heads an effort to build the first practical quantum computer.