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Quantum Teleportation

Abstract

A Tale of Two Qubits - How combining quantum entanglement and classical communication allows for predicting the state of one particle by observing another. Analogous to the Alice and Bob story, if you have two identical boxes, and you know that one of the boxes contains A, and the other box contains B, by opening one box, you can predict the contents of the other. Deceptively simple in concept, this discovery has immense future implications.

Biography

Prior to arriving at UNT, Dr. Garcia served as the NCR Distinguished Endowed Professor and chairman of the department of computer science and engineering at Wright State University in Dayton, Ohio. Before joining Wright State, Garcia served for four years as program director for Interactive Systems in the Information, Robotics and Intelligent Systems Division of the Computer and Information Science and Engineering Directorate at the National Science Foundation. He also served the NSF as program director for engineering in the Directorate for Education and Human Resources. Garcia's research focuses on topics in complexity, bioinformatics, human-computer interaction, artificial intelligence, expert systems and software engineering. He has developed artificial intelligence and expert systems courses that are acclaimed in both the United States and Japan. His background in research also includes advanced work in the areas of robust speech recognition, computer architecture and parallel processing, testing of digital circuits and arithmetic coding theory.