

Superposition, Entanglement, and Raising Schrödinger's Cat

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Research on precise control of quantum systems occurs in many laboratories throughout the world, for fundamental research, new measurement techniques, and more recently for quantum information processing. I will briefly describe experiments on quantum state manipulation of atomic ions at the National Institute of Standards and Technology (NIST), which serve as examples of similar work being performed with many other atomic, molecular, optical (AMO) and condensed matter systems around the world. This talk is in part the “story” of my involvement that I presented at the 2012 Nobel Prize ceremonies.