

Evolution of an Atom Impeded by Measurement: The Quantum Zeno Effect

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A quantum system being observed evolves more slowly. This “quantum Zeno effect” is reviewed with respect to a previous attempt of demonstration, and to subsequent criticism of the significance of the findings. A recent experiment on an *individual* cold trapped ion has been capable of revealing the micro-state of this quantum system, such that the effect of measurement is indeed discriminated from dephasing of the quantum state by either the meter or the environment.

Key words: Quantum Measurement; Single Trapped Ion; Coherently Driven Resonance.