

Colloquium Dahlem Center for Complex Quantum Systems

The physics of information: from Maxwell's demon to Landauer.

Dr. Eric Lutz

Institut für Theoretische Physik, Freie Universität Berlin,

Time: Thursday, November 29th, 2012, 14:00 c.t.

Location: Hörsaal A (1.3.14)

Abstract:

We discuss the intimate connection existing between information theory and thermodynamics. We focus on two complementary aspects: 1) the gain of information with Maxwell's famous demon and 2) the erasure of information with Landauer's principle. We further present recent experiments that have for the first time demonstrated the equivalence between information and thermodynamics.