## Boston University Physics Colloquium



## **Recent Gravitational Experiments** and their Implications for Particle Physics

Laboratory studies of gravity have attained sensitivities that probe interesting ideas at the interface of particle physics and gravitation. I will discuss the experimental techniques, results and implications of:

1. recent tests of the Inverse-Square Law that probe length scales below the 85 micrometer scale associated with the observed dark-energy density

2. Equivalence Principle tests involving laboratory objects, astronomical bodies and galactic dark matter.

3. sensitive tests with electron spins sensitive to Planck-scale Lorentz-symmetry violation and constrain non-commutatitve geometries at the 10^13 GeV scale.

## Eric Adelberger University of Washington

November 13, 2007 (Tuesday) at 3:30 pm (Refreshments at 3:15 pm) SCI 107, Metcalf Science Center, Boston University Call: Winna Somers (wsomers@bu.edu) (617)353-9320 Hosted by Andy Cohen and Sheldon Glashow