



# CU Physics Department Particle Seminar

Wednesday, March 11, 2009 705 Pupin Hall 1:00 PM



## Electron-proton collisions

at  $\sqrt{s} = 320 \text{ GeV}$  -- building the legacy of HERA

For forty years, deep inelastic scattering has been an important tool to investigate the structure of matter at subnuclear distances. Following on a long sequence of fixed-target experiments, HERA was the first, and so far the only, electron-proton collider. It operated at the DESY laboratory in Hamburg, Germany, from 1992 - 2007. The ongoing analysis of the recorded data will go on for several more years. In this talk the fundamental questions tackled by the HERA data will be discussed. Some recent key results on proton structure, precision tests of QCD as well as the Electro-Weak sector of the Standard Model of particle physics, and on searches for non-Standard Model processes will be presented.

Tobias Haas, Deutsches Elektronensynchrotron, Hamburg, Germany

Meet the Speaker will be held at 12:30 PM in 705 Pupin