

# CU Physics Department Colloquium

Monday, October 5, 2009 4:10 PM 428 Pupin Hall



## Illuminating Dark Matter

The existence of dark matter has been confirmed by a wide variety of experiments, on a wide variety of length scales. However, the nature of the dark matter remains elusive. One intriguing class of candidates - weakly interacting massive particles or “WIMPs” - offer the prospect of detection in cosmic rays, in direct detection experiments, and at colliders. Of late, there has been an increasing set of experimental signals, principally from cosmic rays, which may be providing a first sign of dark matter. I will explore the range of signals and anomalies, and the challenges of understanding all of them in terms of dark matter. We will see that, if dark matter is responsible for these anomalies, it may be pointing us to a much richer set of physics in the dark sector.

**Neal Weiner**  
**New York University**



**Hosted by Elena Aprile - No Meet the Speaker this Week**