Contribution ID: **41**   Type: **oral**

Analysis of 3.4 years of CoGeNT Data

Tuesday, November 12, 2013 4:45 PM (30 minutes)

The CoGeNT dark matter detector has been taking data at the Soudan mine since December 2009. The data have been analyzed for a possible WIMP signal using multi-dimensional PDFs in energy, time, and pulse rise-time. The bulk event (fast rise-time pulses) and surface (slow rise-time) event fractions are determined through this analysis. We have also done extensive simulations of backgrounds for the CoGeNT detector, and these backgrounds are compared to the CoGeNT data. The current plans for the next generation detector, C4, are also outlined. We will detail specific improvements in background reduction and energy resolution. Finally, our results are compared to other experiments in the context of low-mass dark matter.

Primary author: Dr KOS, Mark (Pacific Northwest National Laboratory)

Presenter: Dr KOS, Mark (Pacific Northwest National Laboratory)

Session Classification: Plenary Session 4