



Contribution ID: 382

Type: **Parallel contribution**

SciBath: A novel tracking detector for measuring neutral particles underground

Friday, 12 August 2011 11:55 (15 minutes)

The SciBath prototype detector consists of 90 liters of liquid scintillator containing 768 wavelength-shifting fibers aligned in a three dimensional grid. This unique design allows reconstruction of charged particle tracks in arbitrary directions. While constructed as a prototype neutrino detector it is also able to detect neutrons in the 1-100MeV range with $O(30\%)$ efficiency and energy resolution. The device is currently being commissioned and will be deployed in the fall of 2011 to measure neutrinos and neutrons 100m underground in the Fermilab MINOS near-detector area. The latest results will be presented along with plans to deploy at other locations to measure fast-neutron backgrounds for underground experiments.

Primary author: Prof. TAYLOE, Rex (Dept of Physics, Indiana University)

Presenter: Prof. TAYLOE, Rex (Dept of Physics, Indiana University)

Session Classification: Detector Technology and R&D

Track Classification: Detector Technology and R&D