Contribution ID: **272** Type: **not specified**

Dark Matter search with DEAP-3600 at SNOLAB

Tuesday 25 July 2017 09:30 (20 minutes)

DEAP-3600 is a novel experiment searching for dark matter particle interactions on 3.6 tonnes of liquid argon at SNOLAB. The argon is contained in a large ultralow-background acrylic vessel viewed by 255 8-inch photomultiplier tubes. Very good pulse-shape discrimination has been demonstrated for scintillation in argon, and the detector has been designed to allow control of (alpha,n) and external neutron recoils, and surface contamination from 210Pb and radon daughters, allowing an ultimate sensitivity to spin-independent scattering of 10^{-46} cm^{2} per nucleon at 100 GeV mass. After several years of construction, data collection has begun late 2016. Details of the detector construction, commissioning and first analysis results from the experiment will be presented.

Presenter: BOULAY, Mark (Carleton University)

Session Classification: DEAP-3600 Results

Track Classification: Dark Matter