Contribution ID: **100** Type: **Oral**

Searching for Dark Matter with PICASSO

Monday, 9 September 2013 16:00 (20 minutes)

The Project In CAnada Searching for Supersymmetric Objects (PICASSO) at SNOlab searches for Weakly Interacting Massive Particle (WIMP) interactions with 19-F. It is particularly sensitive to spin-dependent particle interactions. It uses a droplet technique, based on the principle of a bubble chamber, in which phase transitions in superheated liquids can be triggered by WIMP induced nuclear recoils. The detection process allows a highly efficient suppression of backgrounds from cosmic muons, gamma rays and beta particles. In this talk recent progress and results will be presented, with particular focus on the 10 GeV low mass region, for both spin dependent and independent interactions. Future plans to scale this technique to 100+ kg with the newly formed PICO (PICASSO/COUPP) collaboration will also be discussed.

Primary author: Dr JACKSON, Christopher (Université de Montréal)

Presenter: Dr JACKSON, Christopher (Université de Montréal)

Session Classification: Dark Matter II

Track Classification: Dark Matter