Contribution ID: **61** Type: **not specified**

Dark matter search from DarkSide

Thursday, 29 October 2015 14:51 (17 minutes)

DarkSide-50 (DS-50) at Gran Sasso underground laboratory, Italy, is a direct dark matter search experiment based on a TPC with liquid argon from underground sources. The DS-50 TPC, with 50 kg of active argon and a fiducial mass of ˜37 kg, is installed inside an active neutron veto based on a boron-loaded organic scintillator. The neutron veto is built inside a water cherenkov muon veto.
DS-50 has been taking data since Nov 2013, collecting 47 days livetime of data with atmospheric argon. Also, recently DS-50 commissioned liquid Ar from underground and measured the level of radioactive 39Ar. The first physics result from DarkSide as well as underground argon performance will be presented. This is the most sensitive dark matter search preformed with an argon target.

Primary author: WADA, Masayuki (Princeton University)

Presenter: WADA, Masayuki (Princeton University)

Session Classification: Dark Matter

Track Classification: Dark matter searches (direct and indirect)