

## Status of the ArDM experiment

*Thursday, 30 May 2013 16:10 (25 minutes)*

The ArDM experiment is a ton-scale double phase argon Time Projection Chamber designed for direct Dark Matter searches.

It combines the detection of scintillation light together with the ionization charge in order to discriminate the background (electron recoils) from the WIMP signals (nuclear recoils).

The ArDM light readout was newly redesigned and produced, improving the light collection efficiency. It consists of two arrays of PMT, i.e. one at the bottom of the detector, immersed in the liquid, and one on top, in the argon vapor.

The charge is measured by the top PMT array via the proportional scintillation in the gas phase.

ArDM has recently been installed to the Laboratorio Subterráneo de Canfranc, and the commissioning phase is ongoing.

In this talk I will report the status of the experiment and recent results from measurements with the detector filled with argon gas using radioactive sources.

**Primary author:** Dr RESNATI, Filippo (ETH)

**Presenter:** Dr RESNATI, Filippo (ETH)

**Session Classification:** Scintillation Light Read-Out for Noble Elements-Based