

Dual Phase Photon Detection System Consortium Meeting

Inés Gil-Botella

DPPD Consortium Meeting

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Ciemat
Centro de Investigaciones
Energéticas, Medioambientales
y Tecnológicas



Topics for today

- Last LBNC meeting in February
- First look at CRT light data (Jose)

LBNC meeting 5-6 December at CERN

- Primary goal was to understand the progress made with the Dual Phase technology including
 - installation, operations, future R&D, plans, schedules, second phase of protoDUNE-DP...
- LBNC Proposal: to have more regular interaction between the DP operations group and the LBNC experts, e.g. on a monthly basis.
 - First meeting: 6 February 2020

LBNC meeting, Feb 6, 2020

- A short document was prepared summarizing the progress since last LBNC meeting
- Photon Detection System:
 - Since last LBNC meeting in December, light runs were taken using the Cosmic Ray Taggers trigger: a long run without fields (23h) on 23/12 and two long runs (11 h) with drift, extraction and amplification fields on 21/1 and 29/1. Also, light and charge runs were acquired simultaneously using the 10 Hz global random trigger on 13/1 and 14/1. A cathode-HV scan was performed with PMT trigger from 0 to 50 kV to study the variation of the S1 signals vs drift field. Three light calibration runs with the LED-fiber system were taken in December and four runs in January. Calibration data with the alternative system (fibers on top of the detector) were also recorded for comparison. Every week, light runs with PMT trigger are taken to monitor the slow scintillation constant among other stability studies. All these data are being analyzed.

For the coming weeks, we plan to continue taking regular PMT calibrations, runs with PMT and random trigger, perform a new cathode-HV scan with CRT trigger and, if possible, take light and charge data in coincidence to develop a common analysis.

LBNC meeting, March 4-6

- They expect a session including a general DP update and DP analysis + breakout session
- In particular, they asked:
 - **Photon Detection System**
(12) We would like to see a summary of the analysis results and plans. And to hear about considerations for adding Xe.

Next meetings

- March 3, DPPD meeting
- Next LBNC meeting at Fermilab: 4-6 March 2020
- March 17, DPPD meeting