

# *Report on the activity of PMT system WG*

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# Scopes

- Scopes of the PMT Working Group is to create a group of person in charge of all the technical aspects of the light detection sub-system and define the activity to some level of detail.
- They have the responsibility of completion of the detector installation and the readiness for operation.
- The PMT WG has also to share to other related WG all the necessary information.

- Three meetings took place in July (the 10<sup>th</sup> and the 28<sup>th</sup>) and August (30<sup>th</sup>) 2018.
- The WG deliverables and the related time schedule were discussed. Young researcher, were invited to participate in PMT activities and to join other WG related to the PMT operation, such as DAQ, trigger, software.
- G.L. Raselli was designed as UE co-convener. The participating US groups are asked to indicate a second co-convener residing in US (FNAL). The US co-convener is still missing.
- G.L. Raselli was designed as reference person inside the Electrical WG.

# Tasks

- A list of tasks to be accomplished in the next future has been defined:
- Recovery of PMT cables and optical fibers, deployment and fastening along the TOP chimneys. Check of cable continuity.
- Preparation of laser system flanges with installation of internal optical splitters. Check of optical connection.
- Installation of the PMT feed-through flanges. Check of continuity.
- Installation of laser system flanges.
- PMT local activation if possible.
- Deployment of external laser system optical fibers. Check of optical connection.
- Deployment of PMT signal and HV cables. Check of cable continuity.
- Installation of HV power supply system on the mezzanine
- Installation of the PMT DAQ system: VME crates, digitizers, optical links, cabling. Activation of the whole light detection system.
- Installation of the timing calibration system: Laser, optical switch. Activation of the whole light calibration system.

- Many of the PMT WG activities are common with other WG tasks. Among them:
  - Trigger WG;
  - DAQ WG;
  - Calibration WG;
  - Electrical and HV WGs;
  - Simulation and analysis WGs;
- Common discussion will be necessary. A first joined meeting between PMT and Calibration WGs took place on 30<sup>th</sup> August 2018. The action item from the Calibrations Group is to ensure that the PMT Group is kept in the loop regarding the procurement of physical event samples (such as stopping muons) toward their use in calibrations for the PMT subsystem.
- It has been asked to have a repository (es. DocDB) of the minutes/material discussed during the WG meetings.