

Status of PMTs

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Status of PMTs

40 PMT testing: Done

- **Paper** summarizing characterization results submitted to JINST, [arXiv:1806.04571](https://arxiv.org/abs/1806.04571)
Cryogenic R5912-20Mod Photomultiplier Tubes Characterization for the ProtoDUNE Dual Phase Experiment.
Results on gain, dark current, linearity, light rate and base validation.

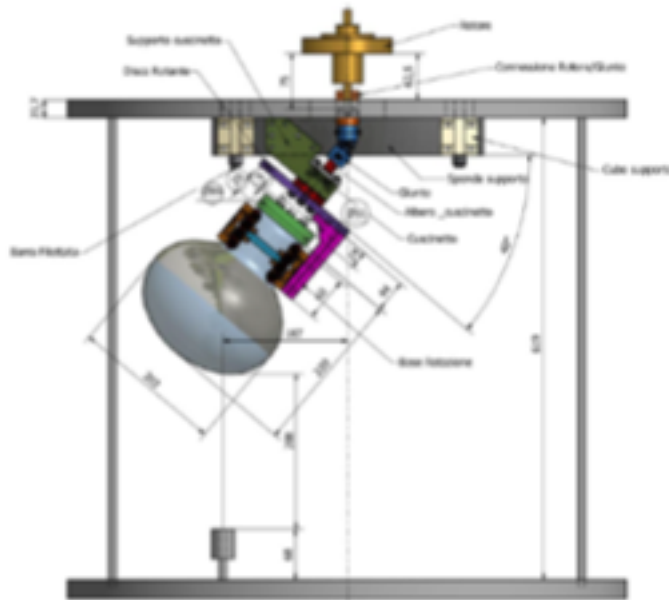


- **Database** with gain and dark current results available at CIEMAT, working on transferring it to CERN using Drupal.
- **Shipping** of PMTs with cables and bases from CIEMAT to CERN: 20th June

A screenshot of the CIEMAT Database web interface. The interface is divided into two main sections: 'Gain' and 'Dark Current'. Each section contains a list of search criteria with dropdown menus and input fields. The 'Gain' section includes fields for Serial Number (options: FAC004, FAC005, FAC006), Place (options: Ciemat, Cern), Hamamatsu data, Temperature (options: 77 K, 300 K), Date, Voltage for a Gain (e.g. 1e9) ... (input field), and Gain at a Voltage (V) ... (input field). The 'Dark Current' section includes fields for Serial Number (options: FAC004, FAC005, FAC006), Place (options: Ciemat, Cern), Hamamatsu data, Temperature (options: 77 K, 300 K), Date, For a Voltage... (options: 1100 V, 1200 V, 1300 V), and Show Dark Current at Hamamatsu 1e9. A blue arrow points from the text 'Database with gain and dark current results available at CIEMAT' to the screenshot.

Status of the Photon Detection System

- TPB coating (IFAE):
July-August
(2 PMT/day)



- Splitters:
Assembly
on-going,
components at
CIEMAT



**Photon
Detection
System will
be ready for
installation
at CERN in
Fall 2018**