# Operation and Long Term Performance TASK

#### **MAIN GOAL:**

understand the behaviour of the detectors in time (SD/ FD/SSD) and if their evolution affects physics analysis

Thursday 17th of May, at 14 o'clock CEST First online Meeting (R.Caruso & I.Maris) Operation and Long Term Performance for the <u>Fluorescence Detector</u>

- FD Operations
- FD Long Term Performances
- HEAT Long Term Performances
- Hybrid
- AugerPrime (?)



People: R.Smida, M.Del Rio, shifters, PAO staff

- <u>FD status on site and during the shifts</u>: weather conditions, quality of electrical systems, status of the different control systems on site, monitoring of failures, events or accidents during or out of the shifts;
- <u>FD shifts:</u> planning, training of the shifters, quality, coordination and management of the shift in situ, electronic loogbook and reports
- <u>FD remote shifts</u>!

## FD Long Term Performance

People: C.Di Giulio, L.Perrone, G.Salina, F.Salamida,

R.Smida, V.Verzi, etc.etc

• <u>Detector stability in time</u>:

behaviour and performances of PMTs, mirrors, filters and different parts of the telescopes (Front End and Data Aquisition electronics, ...), monitoring of the background signal (night sky background and electronic noise), FD Absolute and Relative Calibration

- Data quality
- <u>Status of the FD Databases: calibration and atmosphere</u>
- Energy scale stability

FD Long Term Performance People: J.Bellido, M.Unger, etc.etc

#### • <u>HEAT stability in time</u>:

behaviour and performances of PMTs, mirrors, filters and different partsof the telescopes (Front End and Data Aquisition electronics, ...), monitoring of the background signal (night sky background and electronic noise), FD Absolute and Relative Calibration

• Data quality

• <u>Cross Calibration:</u> HEAT-CO energy difference

### **Hybrid Long Term Performance**

• <u>On time</u>

<u>Reconstructed hybrid rate</u>

• Energy scale stability

<u>AugerPrime and FD Long Term</u> Performance?

(People: R. Smida, etc.)

 How the "Extended FD Operations" in the framework of AugerPrime can affect the FD Long Term Performances?

• Monitoring and studies