

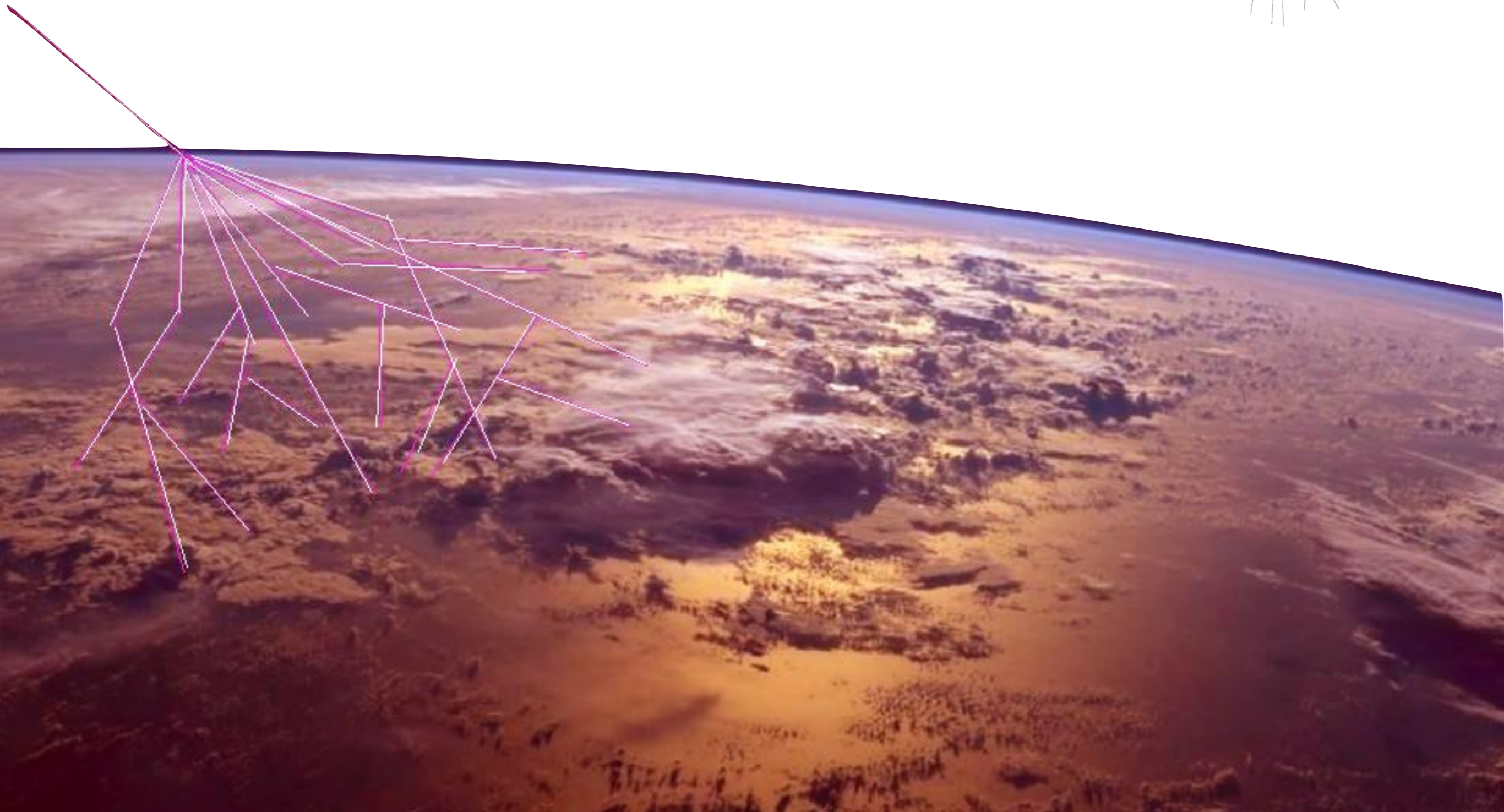
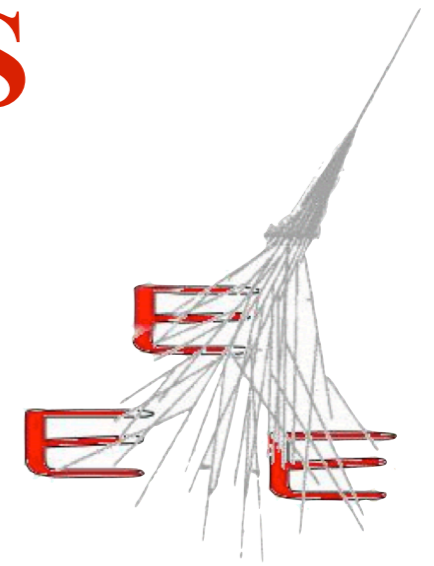
CAGLIARI EVENTS

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EEE PARTICIPATING INSTITUTES



TELESCOPE POSITION IN CAGLIARI



Liceo Scientifico "Alberti" - Cagliari



IISS "P. Levi" - Quartu S. Elena (CA)



CAGL-3

In September 2009 the
telescope CAG-03 was
installed.



CAGL-03 (Liceo Alberti)

CAGL-03 participated to the PILOT RUN although several issues:

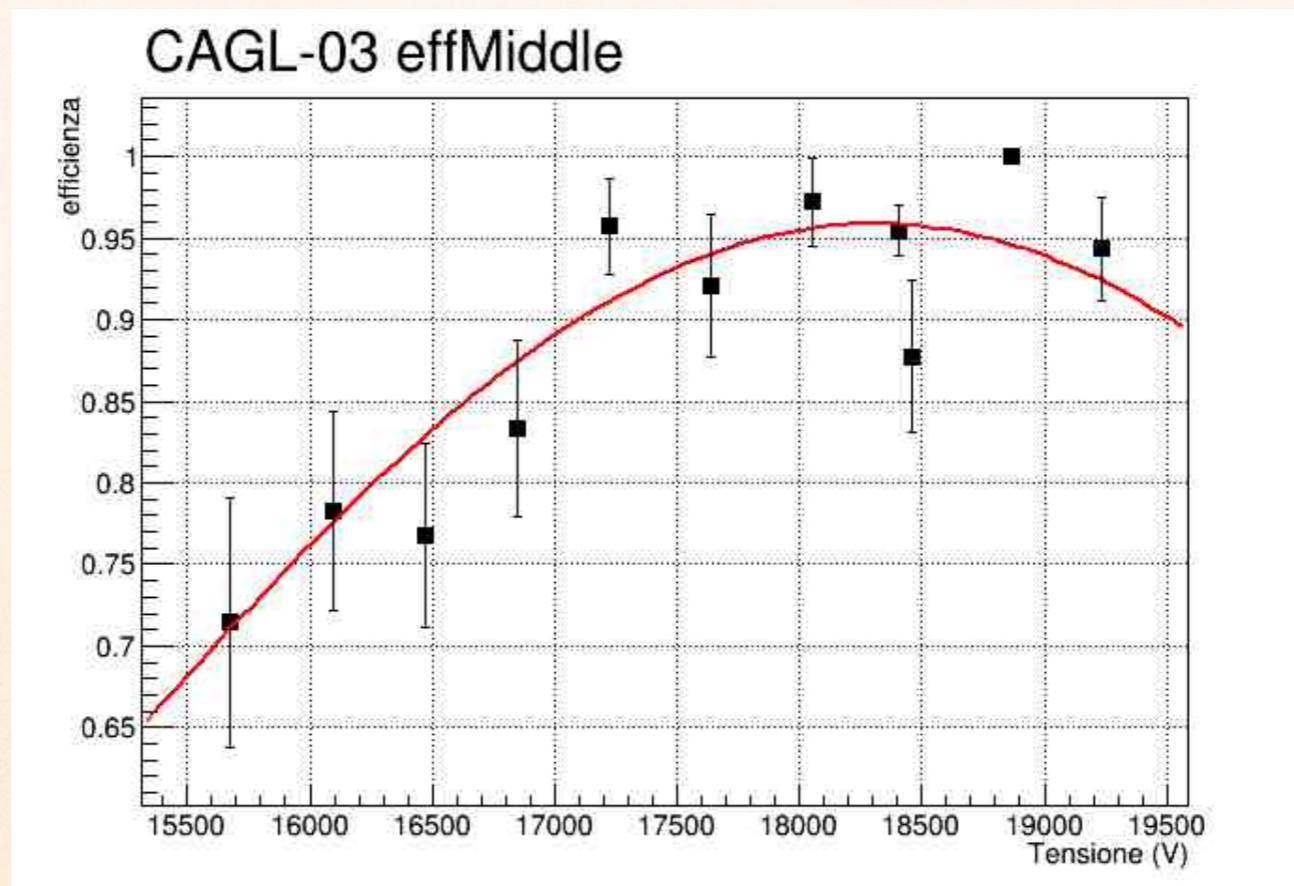
- High level of electromagnetic noise
- Problems with GPS
- Inversion of two Amphenol cables in MIDDLE plane at the entrance of TDC module.
- Possible source of e.m. noise found in the VME crate, later substituted.

CAGL-03 (Liceo Alberti)

- Participation to RUN 1 (February 2015 - April 2015). Situation improved.
- January 2015: substitution of Hytec GPS with SPECTRACOM
- February 2015: installation of Lecce HV power supply. Remotetely controlled.

CAGL-03 (Liceo Alberti)

- Partecipazione to RUN 2 (october 2015 - may 2016)
- June 2016: telescope efficiency measurement



CAGL-03 (Liceo Alberti)

- Measurement of telescope orientation compared to geographic North

Equipment used:

- Chart compass
- Graph paper
- Watch



CAGL-03 (Liceo Alberti)

Angolo rispetto al Nord magnetico [°]	Data e ora (YYYYMMDD - hh:mm:ss)	Marca e modello della bussola	Risoluzione [°] e precisione della bussola [°]	Angolo β [°]	Errore complessivo stimato [°]	Commenti
121°	20161007 15:40:23	Silva type4/54	1°	118,7°	1,5°	CAGL_3

Calculation of CAGL_3 magnetic declination

Model Used:	WMM2015
Latitude:	39.2084114° N
Longitude:	9.1205084° W
Date	Declination
2016-10-07	2.53° W \pm 0.32° changing by 0.13° E per year

CAGL-03 (Liceo Alberti)

- Participation to RUN 3 (october 2016)
- Replacing weather station sensors and reinstalling weather station software
- May 2017: detection of problems in the alignment of the planes.

TRAINING ACTIVITY

- Training courses in the four sardinian schools involved in the project.
- Teacher: Corrado Cicalò (INFN Cagliari),
- Students participating: about 100 students.



IISS “LEVI”

Our school joined the EEE project in year school 2015/2016, and we are looking forward to hosting the telescope as soon as possible.

The assembly of CAGL-04 telescope is foreseen during the last week of next September at CERN.

ACTIVITIES DONE

IISS "LEVI"

We are getting ready to host the telescope. A course held in our school by Corrado Cicalò introduced us to cosmic rays, particle physics and the EEE project.



The EEE project, and in particular the detectors of cosmic rays have been described.

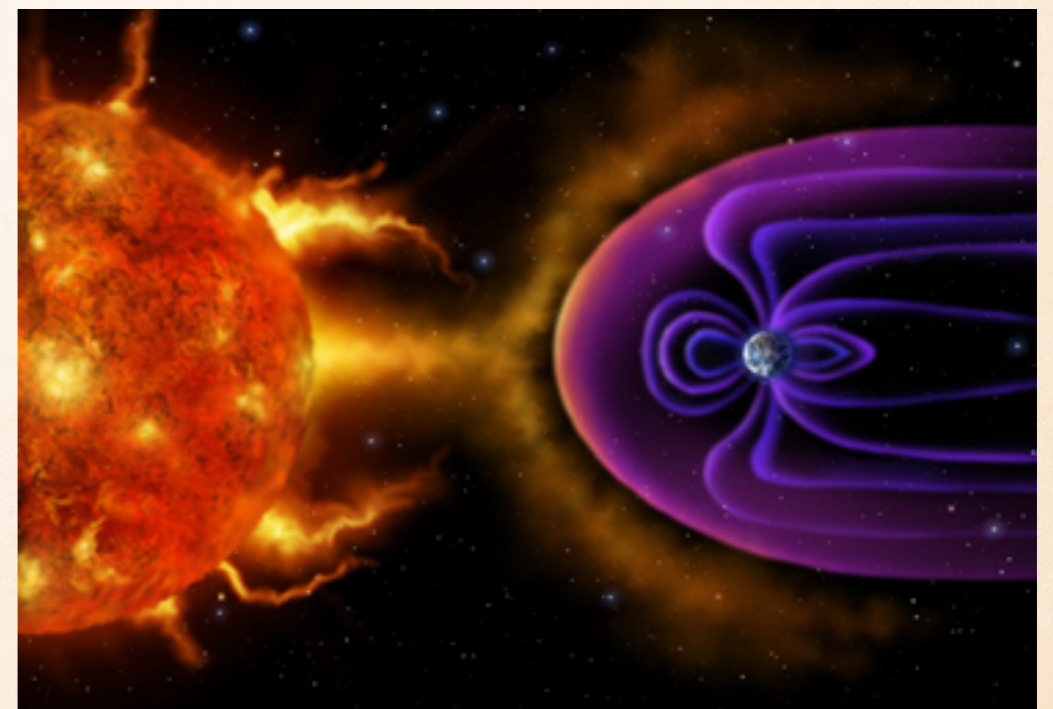
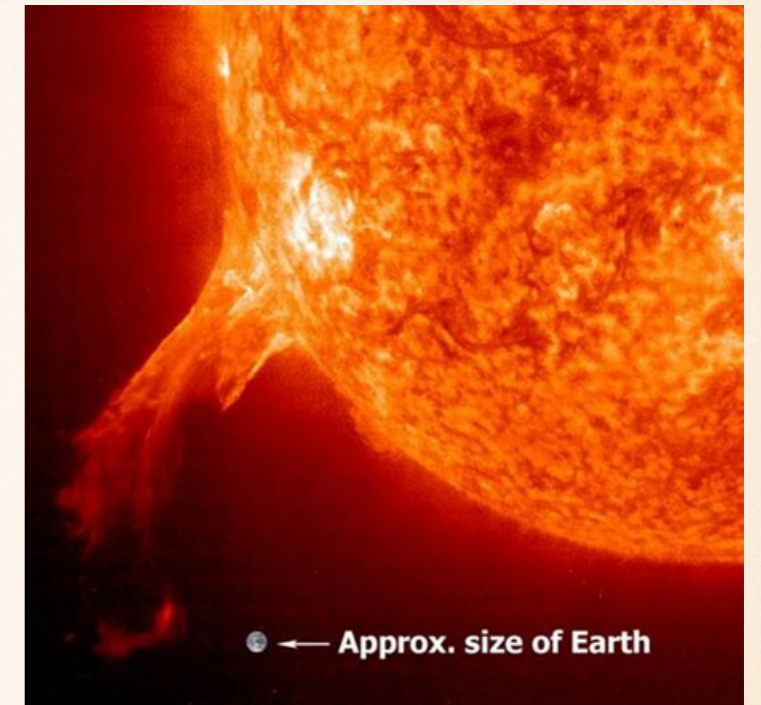
Moreover special attention was given to data collection, detector performance and data lookup thru the network.

We also participated in Run 3 in October 2016 looking at data in other telescopes in Cagliari.

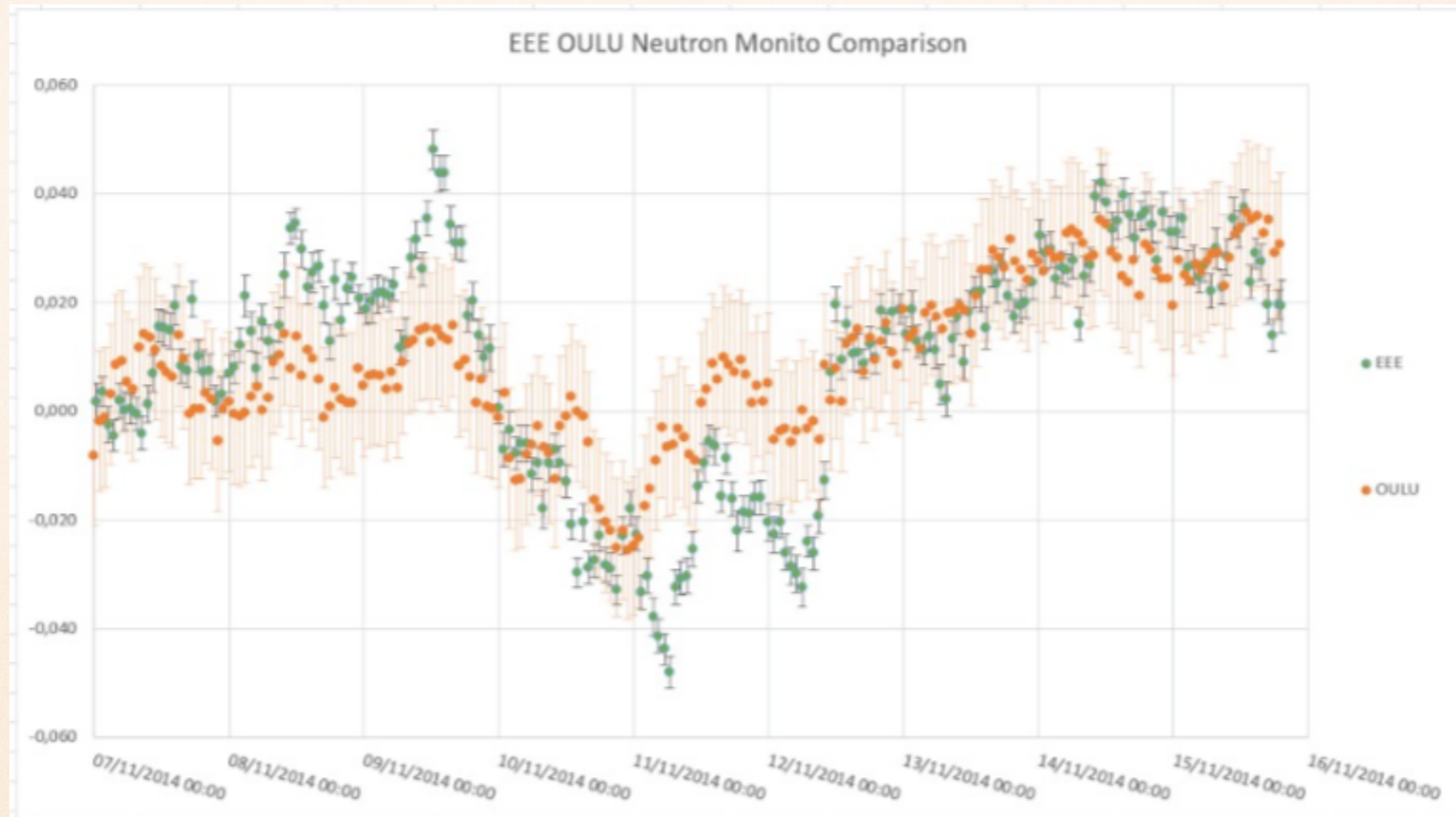
MASTERCLASS FORBUSH DECREASE

The forbush effect was discovered between 1937/1938 and consists on the influence of solar flares on the cosmic ray flux.

With the EEE telescope it is possible to observe this effect. We used the masterclass data and macro to understand and observe the phenomenon.



This effect is graphically representable and it's observed by a telescope.



***Thanks for your
attention***

