CALLISTO status report/newsletter #55

New Callisto station in Copenhagen, Denmark:

Through three projects performed by students, Technical University of Denmark is now ready to join the e-Callisto network. The first project was to construct a log periodic dipole antenna (LPDA) and connect it to the Callisto receiver. Another project was to mount the antenna on motor in order to track the Sun automatically. For this an Arduino microprocessor system was used to control the motor. A third project was to stream data both to the e-Callisto server and to our internal use. It now seems that all parts are working and we can supply data from southern Scandinavia. The responsible contact person at Technical University of Denmark is Kristoffer Leer (mail: kleer (at) space.dtu.dk)

Fig. 1: Alignment of antenna positioning system to the sun.

Congratulations and welcome on board of the e-Callisto network

ETH
Eidgenössische Technische Hochschule Zürich
Swiss Federal Institute of Technology Zurich

ISWI

n|w University of Applied Sciences
Northwestern Switzerland

Several new Callisto stations in commissioning phase

- A new Callisto for low frequency observations is currently in commissioning phase in Trieste
- Malaysia is also commissioning a new Callisto frequency agile solar radio spectrometer
- Almaty, Kazakhstan is commissioning a new Callisto spectrometer for low frequency observations
- Mexico is commissioning a second Callisto on a remote area, see figure 2 below.

Fig. 2: Antenna with automatic positioning system at UNAM - Instituto de Geofísica unidad Michoacan Servicio de Clima Espacial – Mexico.

Contact person: Dr. Victor De la Luz, UNAM - Instituto de Geofísica unidad Michoacan, Servicio de Clima Espacial - MX

http://www.sciesmex.unam.mx

Colleagues from Spain (Contact person: Andrés Russu Berlanga, Edificio de Ciencias, Despacho B06, 28805- Alcalá de Henares – Madrid, Spain) developed a web-based tool to visualize FIT-files from the e-Callisto network. Great job, well done!

This tool allows browsing through the files by selecting data, time and location. Have a look to:

http://www.sorbete.srg.uah.es/sorbitools/ecallisto/

The tool allows among others subtracting background radiation and to integrate in time, for example see figure 3 below.
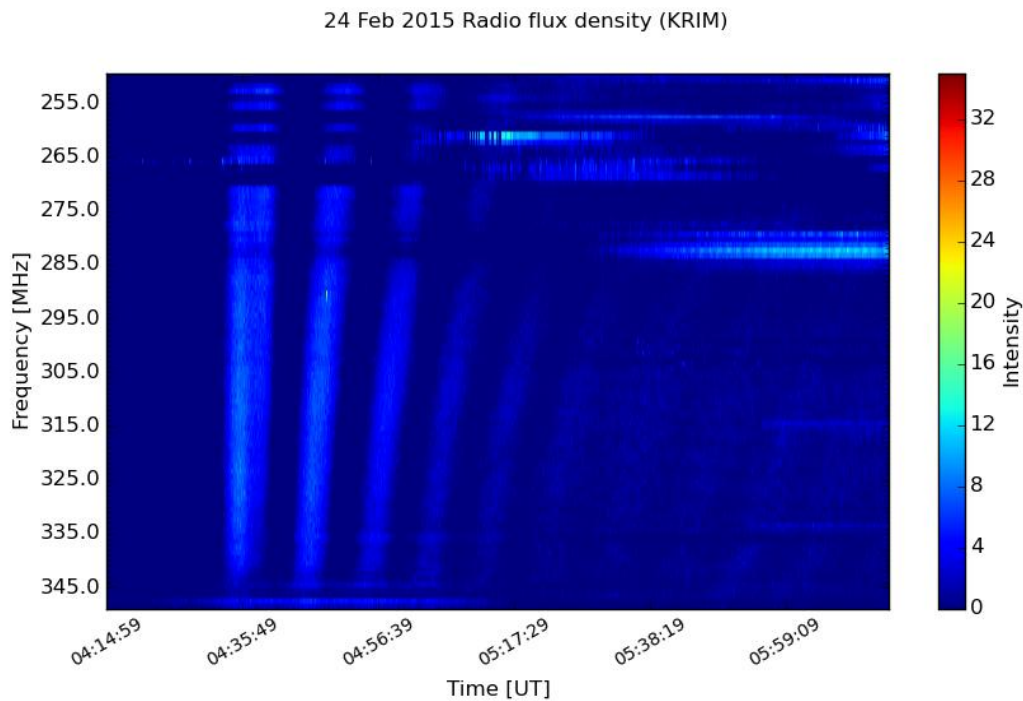

Fig. 3: Example about a two hour observation of solar fringes from the 16 – element array at Crimea Island. Reflected radiation from the sea surface is producing interference with direct radiation from the sun.

Scientists from Glasgow, UK just published a RHESSI-nugget about CME-less type II burst, based on Callisto observations.
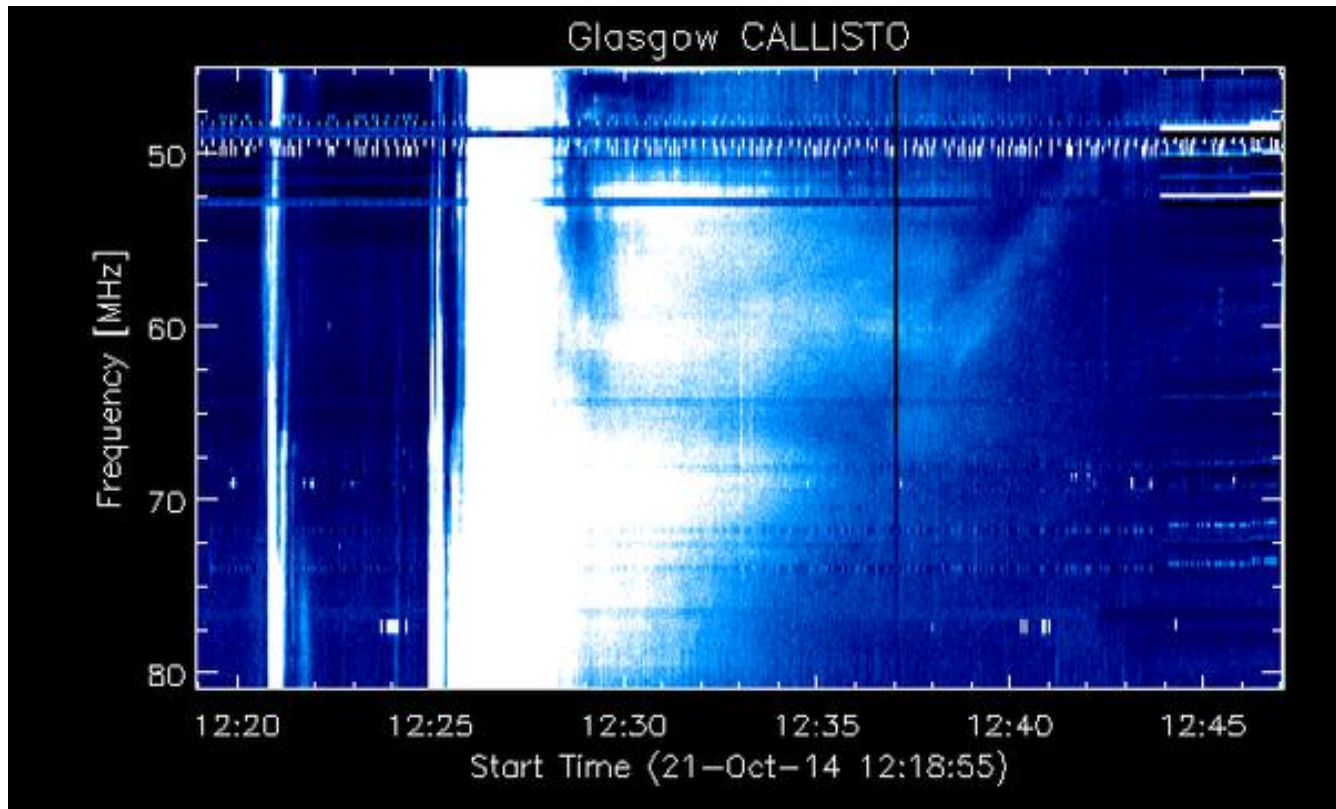

Fig. 4: Strong type III bursts and a weak type II burst, observed in Glasgow.

For full article, see here:
http://sprg.ssl.berkeley.edu/~tohban/wiki/index.php/Glasgow_Callisto_and_CMEless_type_II_bursts

- NOAA changed their websites:
  - Homepage here: http://www.swpc.noaa.gov/
  - Actual event report: http://www.swpc.noaa.gov/products/solar-and-geophysical-event-reports
  - Old event reports here: ftp://ftp.swpc.noaa.gov/pub/indices/events/
  - Actual and previous radio flux lists: ftp://ftp.swpc.noaa.gov/pub/lists/radio/

- Following stations do not supply data anymore/yet. Any support from anybody very welcome to get these stations operational.
  Egypt, South Africa, Kenya, 2 from Hawaii, Costa Rica, Siberia, Brazil, several from India, Pakistan, Austria, one out of two from Slovakia,

- CALLISTO or Callisto denotes to the spectrometer itself while e-Callisto denotes to the worldwide network.

- General information and data access here: http://e-callisto.org/

- Callisto software does operate also under Win 8.1

- e-Callisto data are hosted at Fachhochschule Nordwestschweiz (University of applied sciences FHNW) in Brugg/Windisch, Switzerland. Process control, user communication and scripts are conducted at institute for Astronomy, ETH Zurich.

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On the other hand if you think someone else might be interested in this kind of info, please let me know his/her email-address to be added to the data base.

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