

CALLISTO status report/newsletter #68

Two new Callisto installed at Graz University, Austria

Mid of April 2017 a new Callisto system was installed and commissioned at the Graz University in Austria. The location selected is the historic observatory at Lustbühl south-east of Graz with an existing dual polarization logarithmic periodic dipole array (LPDA), pointing to the average transit position of the Sun. The antenna has not been used for many years, so there was some concern about the quality of the antenna. Measurements with Ohm-meter and VSW-meter as well as polarization measurements showed that the antenna still meets the specifications, provided many years before. So the existing amplifiers, filters and relay was taken out of one channel and it was labelled as 'wide band', while the other one was left in the original configuration and labelled as 'low frequency' given the band-pass filter 10 MHz – 100 MHz. The system is working and is providing data to the central server at university of applied sciences in Brugg/Windisch, Switzerland. Everyone is now expecting and waiting for the 1st light burst observation. Contact: Dr. Manuela Temmer, Uni Graz, Austria.



Fig 1: Dual polarization LPDA at fixed sky position to observe the Sun during transit.



Fig. 2: Component testing with network analyser (NWA) in the control room of the (optical) observatory.



Fig. 3: Verification of polarization with a Yagi-antenna and a radio frequency signal generator

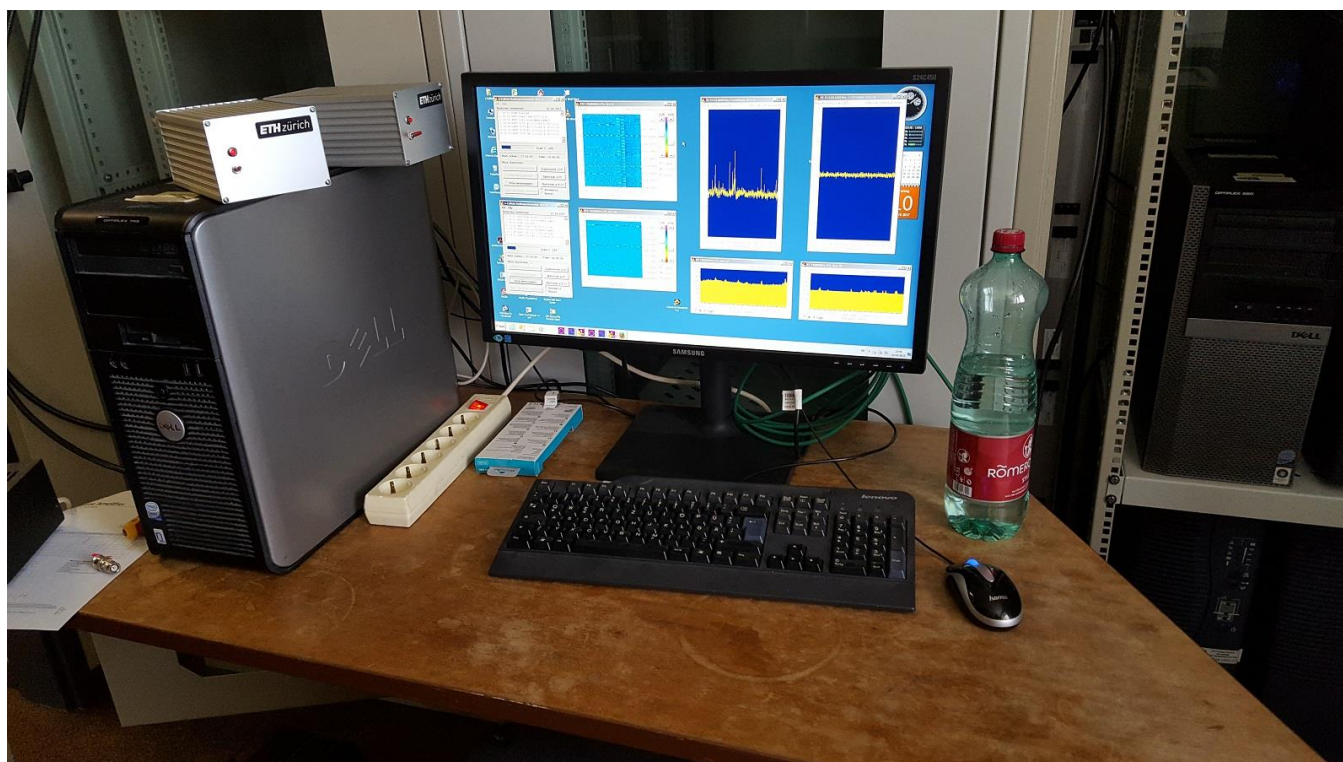


Fig. 4: Temporary setup in front of the cabinet with 2 Callistos, operated by one Windows PC

Instrument status

Instrument is operational in two bands and is providing data to the central server. Nominated crew is currently busy in identifying rfi and is trying to mitigate at least self-produced rfi from their own observatory.

Once 1st light is observed, it will be decided how to improve the whole system in terms of filtering, amplification and cabling/connectors.

Welcome Graz on board of the e-Callisto network

1st light Fritz Lensch, OE3FLB 20170331

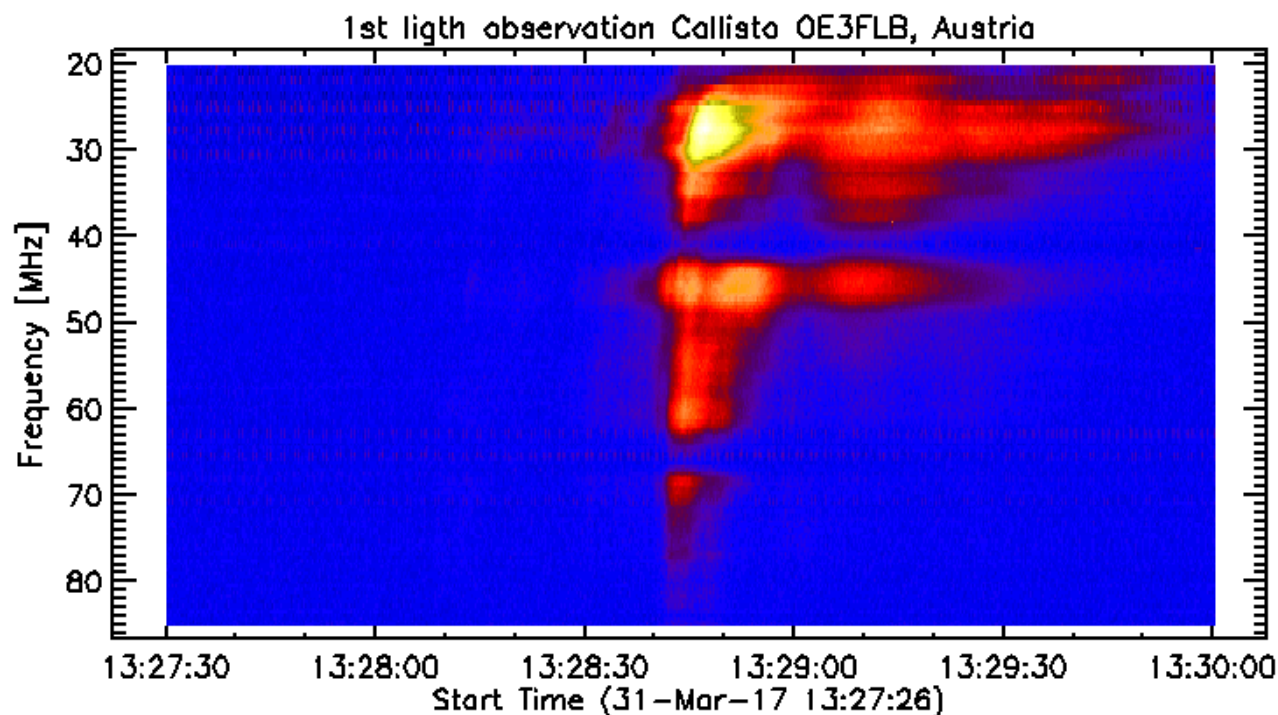


Fig. 5: 1st light of low frequency Callisto station at OE3FLB, Fritz Lensch, Austria. Congratulations to this achievement! A nice type V solar radio burst with very low level of radio interference (rfi).

CESRA news

The Community of European Solar Radio Astronomers (*CESRA*), currently represented by Eduard Kontar of University of Glasgow provides highlights of the solar community, called 'nuggets'. Here a few recent examples:

This week highlight is about
Radio Diagnostics of Electron Acceleration Sites During the Eruption of a Flux Rope in the Solar Corona
by Eoin Carley et al.*
<http://cesra.net/?p=1188>

How Electron Beams Produce Continuous Coherent Plasma Emission
by H. Che, M. Goldstein, P. Diamond, and R. Sagdeev
<http://cesra.net/?p=1310>



International Workshop on Solar, Heliospheric & Magnetospheric Radioastronomy :

The Legacy of Jean-Louis Steinberg (1922 – 2016)

Paris Observatory, Meudon – 6-10 November 2017

<https://jlsworkshop.sciencesconf.org/>

Preliminary Announcement

Jean-Louis Steinberg has been one of the major pioneers in radioastronomy. Co-founder of the Nançay Observatory, he has actively participated to, and inspired a large number of radio instruments on many international space missions. Jean-Louis Steinberg is the founder of the Space Radioastronomy laboratory of the Paris Observatory in 1963. Later on, this laboratory widened its science interests and became the DESPA (1971) and then the current LESIA (2002) which is one of the major space sciences laboratories in France. The aim of this workshop is to cover the science topics which Jean-Louis Steinberg has promoted during his career, focusing on Solar, Heliospheric & Magnetospheric radioastronomy & physics. This will be done by covering both observations from either ground facilities (NDA, RH, LOFAR, Artemis etc ...) or space missions (ISSEE, Ulysses, WIND, CLUSTER, STEREO, CASSINI, JUNO etc ...) and models/theories. A series of invited talks is also foreseen to cover the new developments in the discipline which may come with the future facilities such as Solar Orbiter, Solar Probe Plus, JUICE, JUNO, LOFAR+, SKA etc

Session 1 : Solar Radio emissions, energetic particles and UV/X/g emissions, CMEs

topics : generation of solar radio emissions, observations from ground & space, Flare physics

Session 2 : The interplanetary medium

topics : radio scattering, Thermal noise and radio measurement techniques (direction finding, radio receivers ...), solar wind physics

Sessions 3 : Terrestrial & Planetary radio emissions

topics : generation of radio emissions, observations from ground & space

Sessions 4 : Future projects



Eidgenössische Technische Hochschule Zürich
Swiss Federal Institute of Technology Zurich



University of Applied Sciences
Northwestern Switzerland

topics : Future space & ground based missions & projects

Contact: Milan Maksimovic (milan.maksimovic@obspm.fr), LOC : Karine Issautier, Olga Alexandrova, Philippe Zarka, Michel Moncuquet, Filippo Pantellini,, Baptiste Cecconi, Pierre Drossart, Sylvain Cnudde, Claudine Colon

SOC members: Iver Cairns (Australia), Nicole Cornilleau (France), Karine Issautier (France), Paul Kellogg (USA), Alexander Konovalenko (Ukraine), Eduard Kontar (UK), Volodya Krasnosselskikh (France), Bob Macdowall (USA), Milan Maksimovic (chair, France), Helmut Rucker (Austria)

First Announcement

47th Young European Radio Astronomers Conference

YERAC 2017

Bologna, 18-22 September 2017

<http://indico.ira.inaf.it/event/4/>

The Young European Radio Astronomers Conference has been held almost every year since 1968, hosted by the various European Radio Astronomical Institutes.

The purpose of YERAC is for undergraduate, graduate and young post-doctoral students in radio astronomy from all over Europe to meet each other and present their work.

'Europe' includes any country from Russia in the East to Portugal in the west, plus affiliates of the European VLBI Network, RadioNet or other current bodies.



For many of the participants, YERAC is their first international meeting, and it provides them with a good opportunity to get practice giving talks about their research. The conference sessions are therefore exclusively for their talks and posters.

Due to its nature, YERAC covers all aspects of radio astronomy, from the Sun out to the cosmic microwave background, from stars and planets to the most distant galaxies, using single dish and interferometric techniques, models and theoretical work.

YERAC is especially valuable in forging pan-European links between new astronomers which frequently lead to fruitful collaborations over many decades.

The Istituto di Radioastronomia hosted the YERAC three times in the past: in 1972, 1980 and 1996.

Participation in YERAC is by nomination only. A maximum of about 50 participants will be accepted. Directors of radio astronomical institutes and University Departments are invited to send one student and inform the organization of the YERAC as soon as possible, and in any case **NO LATER THAN May 15th, 2017.**

RadioNet and the Istituto Nazionale di Astrofisica, Istituto di Radioastronomia will cover the costs of accommodation and lunch for each participant. No further support to participants will be allocated. No registration fee is requested.

At the page www.yerac.org information on the previous editions of the YERAC can be found.

Venue

The YERAC will be held at the Area di Ricerca del CNR, Via Gobetti 101, Bologna. It will start on the morning of September 18th, 2017 and will finish at lunch time on September 22nd, 2018.

Accommodation

The participants will be lodged in double rooms at the brand new hostel **We_Bologna** (we-gastameco.com), located about 20 minutes walk from the



CNR and within walking distance from the New AV Bologna Central Station (Via Carracci Exit). The accommodation will include breakfast.

Participants are expected to arrive on Sunday September 17th, and depart on Friday September 22nd.

Important deadlines

May 15 - Directors send the name of the participant to yerac-17@ira.inaf.it

June 1 - Participants who need a visa ask for the invitation letter providing the complete information.

July 1 - Registration deadline

July 15 - Abstract submission

Website: <http://indico.ira.inaf.it/event/4/>

Contact: yerac-17@ira.inaf.it

Organising Committee:

M. Bondi & T. Venturi

M. Stagni - Web manager

A. Tabellini - Secretary and administration



AOB

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- **ESA Space Situational Awareness:** <http://swe.ssa.esa.int/>
- http://swe.ssa.esa.int/web/guest/GEN_1st
- **You need to register first, then you can login for data retrieving**
- <http://swe.ssa.esa.int/web/guest/request-for-registration>
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- Status Callisto in different countries/locations unknown. Any information is very welcome. It would be nice if all countries could provide solar data to the network.
- Links for LPDA design:
 - <http://www.changpuak.ch/electronics/lpda.php>
 - <http://www.stroobandt.com/lpda/en/index.html>
- In case you plan to publish a paper based on e-Callisto data, please invite the observer and me as the PI of the network for co-authorship. This, according to the UN/ISWI resolution about data policy, addressed during the last UN/Japan workshop at Fukuoka University.
- 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/>
- 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.

Please do **not** respond to the email-address of the list-server, respond instead directly to me [monstein\(at\)astro.phys.ethz.ch](mailto:monstein(at)astro.phys.ethz.ch)

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Christian Monstein, Institute for Astronomy, ETH Zurich, Switzerland. [monstein\(at\)astro.phys.ethz.ch](mailto:monstein(at)astro.phys.ethz.ch)