



CALLISTO status report/newsletter #82

New CALLISTO station at IRSOL in Locarno Monti, Switzerland

IRSOL is a research institute devoted to solar physics. The quality of its instrumentation — result of decades of evolution — allows for unique observations in the field of high precision solar spectropolarimetry.



On July 03, 2019 a new Callisto station has been installed, configured and set into operation at IRSOL. Antenna is a wide band LPDA, covering 50 MHz up to 900 MHz. Due to strong rfi from local transmitters and transmitters from north of Italy, we were not able to install a low noise amplifier (LNA), so we are observing with native noise figure of Callisto in the order of 9 dB.

Fig. 1: The author, Boris and Gianpaolo installing the LPDA at IRSOL. Now, everyone is waiting for the 1st light, any kind of solar radio burst....

Welcome IRSOL on the e-Callisto network

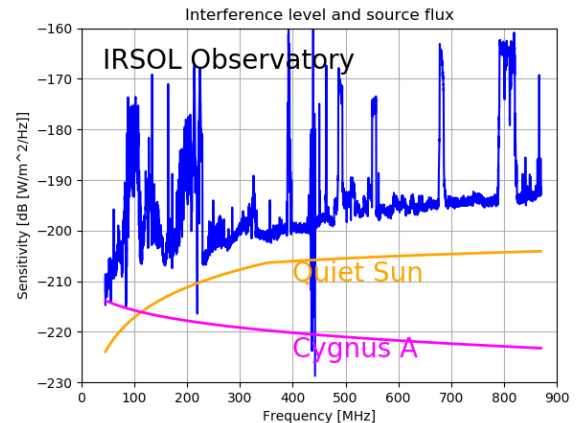
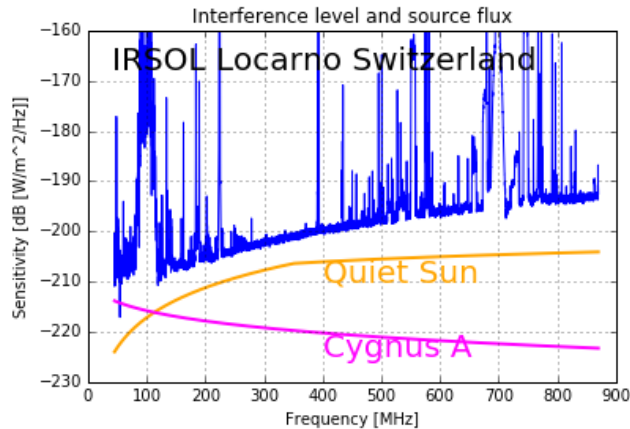


Fig. 2: Spectral overview 2007 (left) and 2019 (right). FM-radio got weaker but DAB-T was growing. Analog TV disappeared but DVB-T was growing. In general, base line got noisier due to self-produced rfi given huge amount of nearby electronics like computers, monitors, mobile stuff, networks etc. Negative peak around 440 MHz is due to saturation of the spectrometer at this frequency.

Update from Udaipur solar Observatory:

Announcement of PRL-USO e-CALLISTO, operated by Bhuwan Joshi, Udaipur Solar Observatory, India.

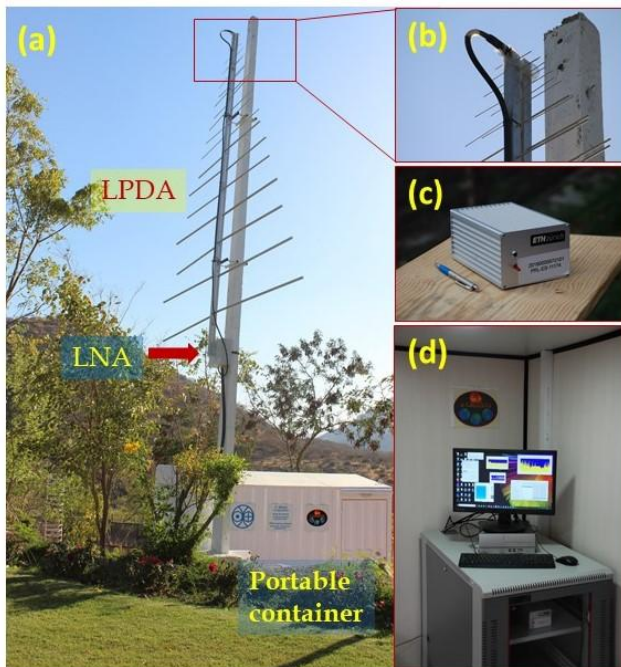


Fig. 3: Image-compilation (a) with:
b) Connection of coaxial cable with LPDA
c) Callisto frequency agile spectrometer
d) Backend with computer, monitor etc.

Link to their new Callisto related website:
<https://www.prl.res.in/~ecallisto/>



Excuses:

- In my previous status report #81, I forgot to mention Callisto station in Sri Lanka. Sri Lanka is hosting two instruments, currently operated by: Janaka Adassuriya, Astronomy Division, Arthur C Clarke Institute, Katubedda, Moratuwa, Sri Lanka.
- In addition I mixed up two stations in Australia ASSA versus LMRO, sorry about my mistake.

Recent papers, based on Callisto data:

<https://doi.org/10.3847/1538-4357/ab1b52>

<http://arxiv.org/abs/1906.11780>

CESRA news:

The effect of scattering on the apparent positions of solar radio sources observed by LOFAR
by Mykola Gordovskyy

<http://cesra.net/?p=2206>

3D reconstruction of CME-driven shock-streamer interaction as a coronal magnetic field diagnostics
by S. Mancuso et al.*

<http://cesra.net/?p=2212>

Scaling-laws of Radio Spike Bursts and Their Constraints on New Solar Radio Telescopes
by Baolin Tan et al.

<http://cesra.net/?p=2229>

Detection of spike-like structures near the front of Type II radio bursts by S. Armatas et al.

<http://cesra.net/?p=2247>



AOB

- Regarding QuickViews (QV) at main server at FHNW, the image position has been shifted to the right, such that the links to the images are always visible while moving mouse over it. Thanks to Kushtrim Sylejmani, FHNW.
- Unfortunately, Callisto at Arecibo Puerto Rico has been stopped due to the end of the contract of the local PI.
- e-callisto.org main page has been updated by a link to Udaipur Solar Observatory
- Callisto instrument, foreseen for POLAND is currently in testing phase in the high frequency laboratory in Zurich.
- Denmark re-started operation of their Callisto + LWA at Brorfelde.
- 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 University of Applied Sciences, Institute for Data Science FHNW in Brugg/Windisch, Switzerland. Additionally, data are hosted at ESA site here: SSA Space Weather Portal (<http://swe.ssa.esa.int/>).
- In case you (as the responsible person for operating and maintenance of Callisto) are leaving the institute or, if you are retiring, please send me name and email address of the successor.

**Please do NOT respond to the email-address of the list-server, it is a computer/robot.
Respond instead directly to me at: [cmonstein\(at\)swissonline.ch](mailto:cmonstein@swissonline.ch) or [monstein\(at\)irsol.ch](mailto:monstein@irsol.ch)**

If you do not want to receive this newsletter, please send me an email and I will take your address out of the database. 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 database.

Christian Monstein
Istituto Ricerche Solari Locarno (IRSOL)
Via Patocchi 57
6605 Locarno Monti
Switzerland
email: [monstein\(at\)irsol.ch](mailto:monstein@irsol.ch)