



CALLISTO status report/newsletter #94

New instrument at Egersund, Norway

A new Callisto system has been installed in Egersund, Norway in October 2022 to perform solar radio burst observations at decametre wavelengths by Jan Henning Holmedal Lustrup.

His Callisto is now set up to monitor from 16 MHz up to 90 MHz with a simple Windom antenna, with no LNA and 35 meters with RG58/u coax cable. He uses a Noelec up converter that will shift 16 MHz to 90 MHz band up 100 MHz into the VHF band (now 116 MHz to 190 MHz). The Noelec uses a local oscillator crystal of 100.000 MHz and an ADE-1 mixer with input and output low pass and high pass filters. Next, he still needs to adjust the mixer input low pass filter to go all the way up to 90 MHz in a nice level manner. The image below shows 1st light from Egersund.



Fig. 1: 1st light from Egersund. Left bright type III and right weak type II. Time-axis is local time.

Welcome on board of the e-Callisto international instrument network!

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e-Callisto burst statistics September 2022



Fig. 7: Compilation of all visually detected bursts from all Callisto-stations which provide data to the e-Callisto network. There is a clear winner of the 'competition', Arecibo Observatory; congratulations!

Too bad: Most of the stations do not provide data to the central archive and there are many reasons such as: Broken instrument (LNA, cables, connectors, antenna tec.), no electrical power and/or no internet access and even loss of motivation ...







CESRA NEWS

Tackling the Unique Challenges of Low-frequency Solar Polarimetry with the Square Kilometre Array Low Precursor: The Algorithm by Devojyoti Kansabanik et al https://www.astro.gla.ac.uk/users/eduard/cesra/?p=3375

First detection of metric emission from a solar surge by Costas Alissandrakis et al.* <u>https://www.astro.gla.ac.uk/users/eduard/cesra/?p=3363</u>

Narrowband Spikes Observed During the 13 June 2012 Flare in the 800 – 2000 MHz Range by Marian Karlicky et al <u>https://www.astro.gla.ac.uk/users/eduard/cesra/?p=3378</u>

AOB

- IRSOL is meant as the new core-station of the e-Callisto network
- To avoid strange issues with Windows computers, disable disc caching. Otherwise configurations files might not be updated in Callisto with the latest information
- Another access to Callisto data here: <u>https://vwo.nasa.gov/</u>
- CALLISTO or Callisto denotes to the spectrometer itself while e-Callisto denotes to the worldwide network.
- E-Callisto website has been upgraded and updated and uses now SSL. You may need to press reload-button to get latest information.
- General information and data access here: <u>http://e-callisto.org/</u>
- e-Callisto data are hosted at University of Applied Sciences, Institute for Data Science FHNW in Brugg/Windisch, Switzerland. Additionally, data are available at ESA site here: SSA Space Weather Portal (<u>http://swe.ssa.esa.int/</u>).
- 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.





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