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CALLISTO status report/newsletter #64

New function on e-Callisto website

To get a quick overview about the status of the different instruments, a new dynamic image was produced. The image presented in figure 1 shows day/night areas and status of instruments today and two days ago. Instrument which did not provide data within the last two days are plotted in blue dots. Instruments working two days ago are shown in green while instrument providing data today are shown in red. Blue dots are also for stations which never provided data. All the software coding has been performed in Python 2.7

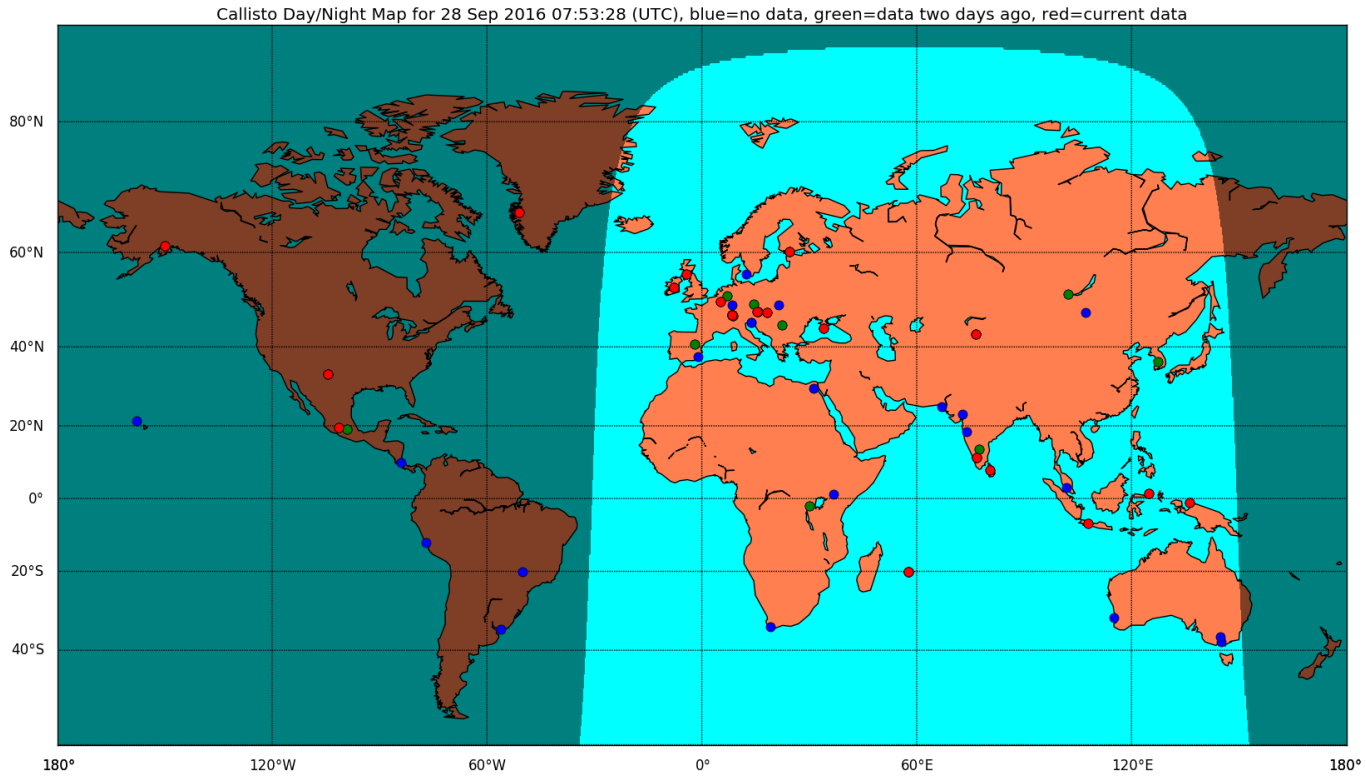

Fig. 1: Dynamic instrument plot. Press reload on your browser to see the latest situation.

New functionality in archived data

The archive got a new process called 'Daily overview' which collects all data from the previous day and compiles the FIT-files to a total image. From each 15-minute FIT-file the 1st sweep is subtracted to get rid of most of the background and rfi. In addition to the plot from yesterday an identical plot is generated from one month ago with respect to those instruments which proved their data delayed due to internet issues or other issues which don't allow to provide real-time data. Access the these overviews can be found on the main page of e-Callisto or directly here: http://soleil.i4ds.ch/solarradio/data/1998-2009_quickviews/

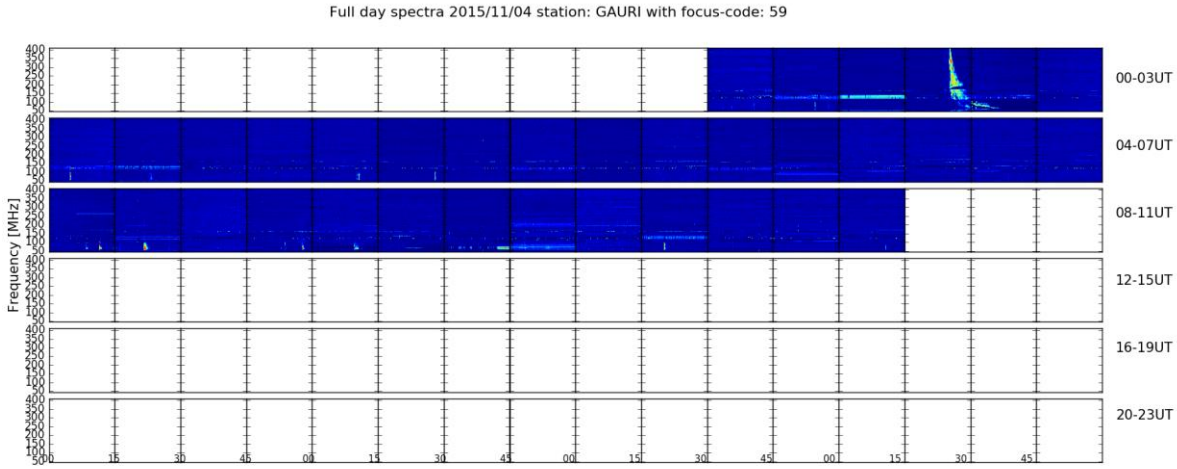

Fig. 2: Daily overview from Gauribidanur/India from an event 2015-11-04 showing a nice type II burst

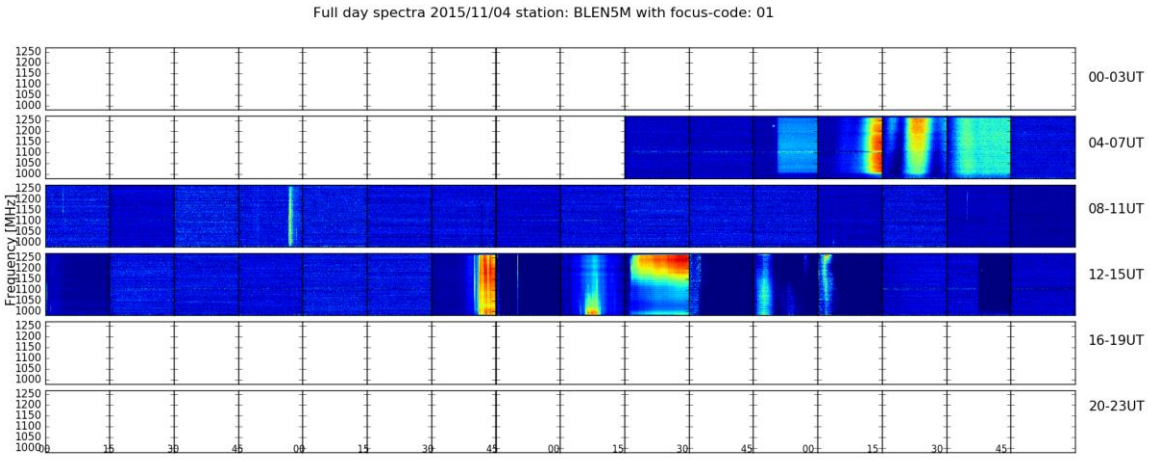

Fig. 3: Same day from Bleien/Switzerland in L-band 960-1260 MHz with up to 50dB [sfu] which led to a shutdown of Swedish airports as well as to navigation issues at Thule airport in Greenland.

New archive about worldwide rfi

Initiated by CRAF, all existing and currently available spectral overviews were converted in comparable plots to get an impression about local rfi and change of intensity over time. I'm still optimistic to get more spectral overviews from all instruments of the e-Callisto network. Your action is required to provide spectral overview files (OVS*.prn for sky and 50 ohm-reference).

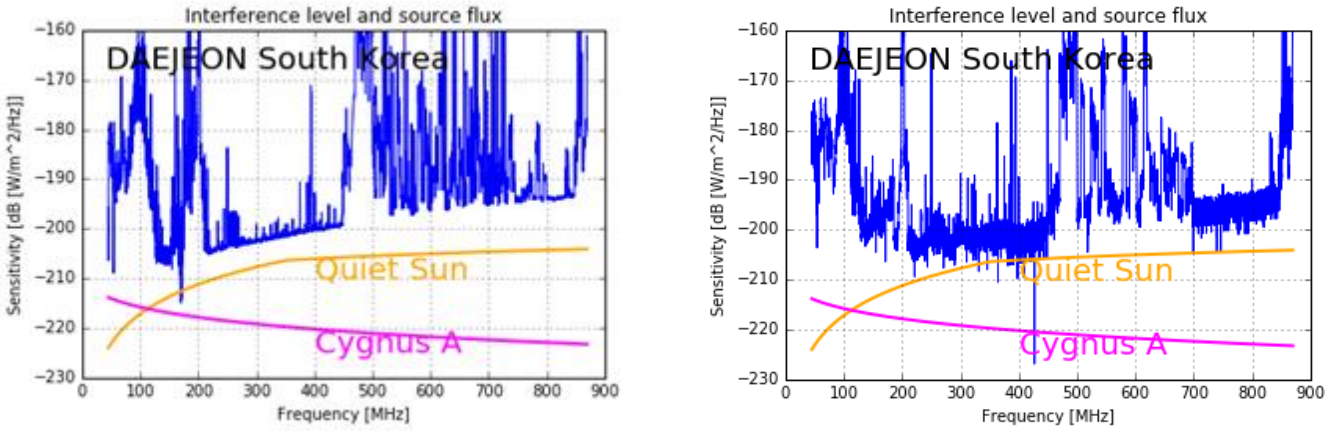

Fig. 4: Spectral overview from KASI/South Korea. Left from June 2012, right from July 2016. General level of rfi has increased.

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:

- Bright 30 THz impulsive solar bursts by Pierre Kaufmann et al. http://cesra.net/?p=743
- Decameter U-burst Harmonic Pair from a High Loop by Dorovskyy et al. http://cesra.net/?p=692
- On the thermal nature of 140 GHz emission from the 4 July 2012 solar flare by Yuriy Tsap et al. http://cesra.net/?p=767
- High resolution observations of radio noise storms in the solar corona by Prasad Subramanian and Claude Mercier http://cesra.net/?p=826
- An Analysis of Interplanetary Solar Radio Emissions Associated with a Coronal Mass Ejection by V. Krupar et al. http://cesra.net/?p=817
- Diagnostics of the acceleration modulation process based on quasi-periodic variations of flare emission by Kupriyanova et al. http://cesra.net/?p=846
- Keep yourself informed here: http://www.astro.gla.ac.uk/users/eduard/cesra/

New Callisto station in China

Recently, I got news from China. There is a new Callisto station in Chashan/China. I hope Chashan will provide radio data soon to the e-Callisto archive.

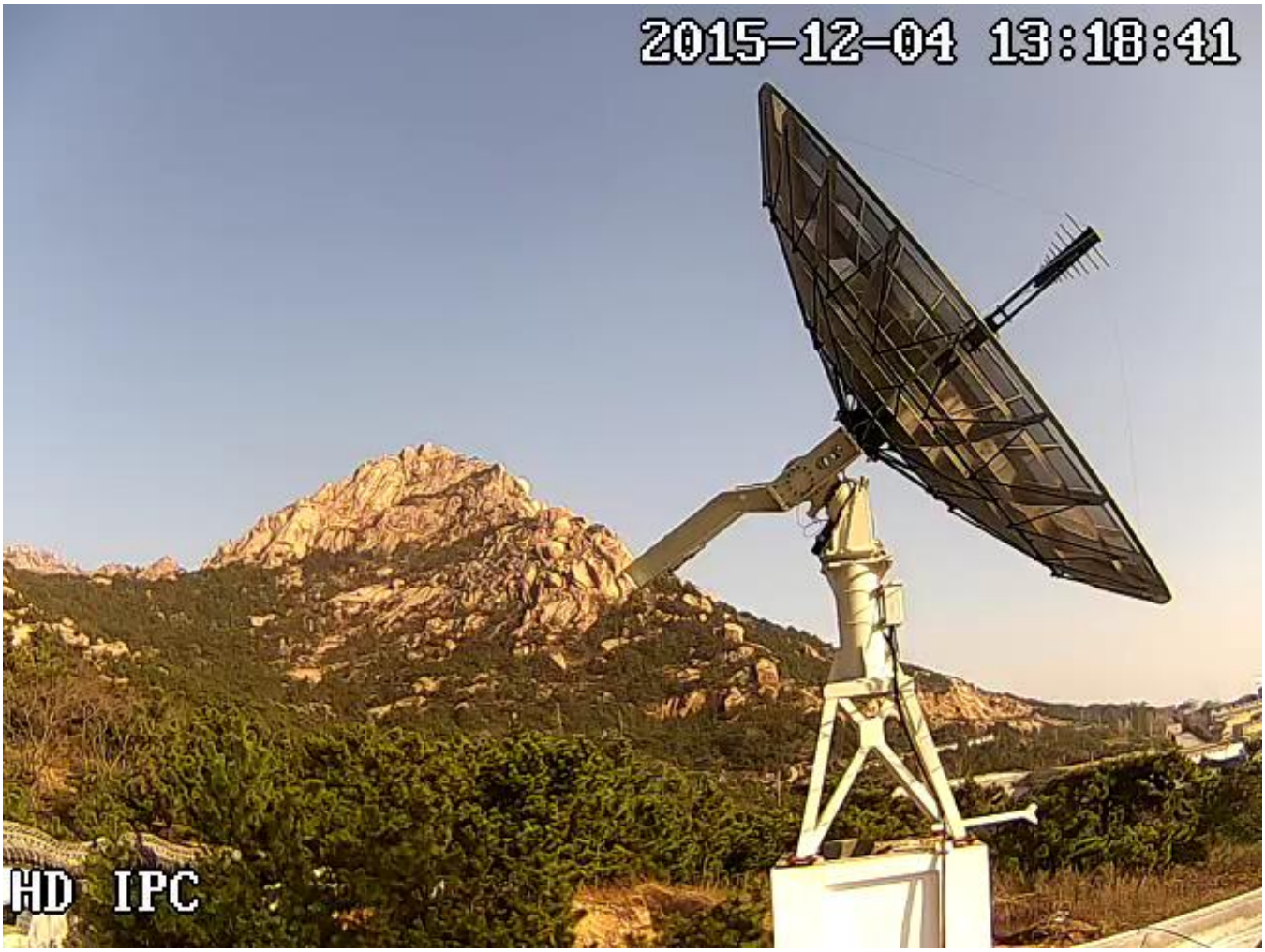

Fig. 5: 6m parabolic dish Chashan observational station located at E122.31 N36.84.

Contact information: Prof. Dr. Yao CHEN (陈耀), Center for Space Weather Studies (CSW), Institute of Space Sciences, Shandong University, Weihai China http://space.wh.sdu.edu.cn

AOB

- Status Callisto in Japan, Kenya, Egypt, Costa Rica, South Africa, Bulgaria, Malaysia, Kolkata and Australia unknown. Any information very welcome. It would be nice if these

countries could provide solar data again to the network.

- After a long period of silence many of you got a nice type II solar radio burst on July 10th, 2016 around 01:00UT. Observations were provided from: ALMATY, KASI, MEXART, SSRT, ROSWELL-NM, for data and quick overview see here: http://soleil.i4ds.ch/solarradio/callistoQuicklooks/?date=20160710

- We are in planning-phase for a COSPAR workshop in Ethiopia in 2017

- Remember space weather workshop in Sangli/India: http://www.iiap.res.in/meet/school_meet/index.php

- Next week 1st SCOSTEP workshop in Bern/Switzerland

- LNA of Kigali/Rwanda has been repaired and sent back after a lightning stroke

- 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.

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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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