

Executive summary: ID #382 SH | Solar & Heliospheric

Commissioning of CALLISTO spectrometers in Peru and observations of type III Solar Radio Bursts

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- **What is this contribution about?**

This talk describes the installation and commissioning of two e-CALLISTO stations in Lima, Peru. These radio spectrometers are used to look for solar bursts. One station inside the city center was only for test purposes, while the other site located in the outskirts had lower background noise, since it has a natural terrain shielding.

- **Why is it relevant / interesting?**

During the operation period, these stations were unique in their time-zone (i.e. GMT-5) coverage and given the location near the Equator data can be taken evenly during the year. The recorded radio spectra are used to study the properties of type III SRBs.

- **What have we done?**

We have implemented each station with an LPDA antenna plus a spectrometer, operating in the 70-870 MHz bandwidth. We have analyzed the RFI of both sites. We have taken data with one receiver for almost two years providing this information to the e-CALLISTO network.

- **What is the result?**

We have found 12 type III Solar Radio Bursts from the data taking period and analyzed their dynamical spectra, showing the observational capabilities of the facilities. We have characterized the most common radio bursts with a negative drift rate and duration of 2.6 s. It was also possible to calculate a global frequency drift for some group bursts.