



Observations of solar radio emissions in meter wavelengths carried by CALLISTO-BR

F. C. R. Fernandes (1), R. D. C. Silva (1), Z. A. L. Sodré (1), J. E. R. Costa (2), and H. S. Sawant (2)

(1) IP&D, UNIVAP, São José dos Campos, SP, Brazil (guga@univap.br), (2) DAS, INPE, São José dos Campos, SP, Brazil

Two Callisto-type (Compound Astronomical Low-cost Low frequency Instrument for Spectroscopy and Transportable Observatory) spectrographs are in operation in Cachoeira Paulista, Brazil, since 2010. The CALLISTO-BR integrates the e-Callisto network consisting of several radio spectrographs distributed around the world, for provide continuous monitoring (24 hours) of the solar activity in the meter frequency range of 45 - 870 MHz. The solar radio emissions observations carried out by Callisto can be used as a diagnostic of several physical processes on the Sun. Here, we present the observations of several bursts recorded by CALLISTO-BR, such as type I bursts associated with a long lasting noise storm, recorded on March 30, 2010 in the typical frequency band around 200 MHz; a group of normal drifting type III bursts recorded in March 31, 2010 and also in February 15, 2011 and a rarely observed broadband ($\sim 180 - 800$ MHz) continuum emission presenting positive frequency drifting (from low to high frequencies), suggesting the source is moving towards photosphere. Observations of type II and type IV bursts were also recorded. Details of these and many other solar radio emissions recorded by CALLISTO-BR will be presented and their implications for the solar activity and space weather investigations will be discussed.