



Ground-Based Radio Observations in Nançay at the time of the Parker Solar Probe and Solar Orbiter

Nicole Vilmer (1,2)

(1) Paris Observatory, LESIA, Meudon, France (nicole.vilmer@obspm.fr), (2) Paris Observatory, Nançay Radioastronomy Station, Nançay, France

Ground-based radio emissions will provide complementary data to the remote-sensing and in-situ measurements that will be obtained aboard Solar Orbiter and the Parker Solar Probe. Decimetric/metric/decametric radio observations will be routinely observed in Nançay (Paris Observatory) with a set of three instruments: the Nançay Radioheliograph (NRH) which will provide images of the solar corona between 450 and 150 MHz, and two spectrographs covering the complete frequency band from 1GHZ to 10 MHZ (with the solar-dedicated spectrograph ORFEES and the Nançay Decameter Array, NDA looking at both solar and jovian emissions).

The combination of data from these three instruments can provide unique complementary observations on structures of the quiet corona (as seen in radio), on the onset of coronal mass ejections and shocks as well as on the propagation of electron beams from the flare site to the interplanetary medium. These observations are largely complementary to those of the radio spectrographs RPW and FIELDS and of the X-ray instrument STIX on Solar Orbiter. I will show a few examples of the complementarity of the observations.

(presentation on behalf of the NRH,ORFEES,NDA teams of Nançay)