



## Cosmic ray particles behavior during last solar minimum

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The work presents the Heliosphere characterization during the minimum solar activity. It is possible to identify phenomena caused by the Corrotating Interaction Regions – CIRs, during this solar activity phase. CIRs can be visualized in satellite data for each 27 days, approximately, and it is frequently accompanied by the Earth crossing through the Heliospheric Current Sheath – HCS. These crossing occur in a period of time lower than a day, and it is possible to study the behavior of cosmic rays particles in two different regions with opposite magnetic field polarities. The last solar minimum was special because their long duration and it was the first that the Global Muon Detector Network – GMDN operated in its full capacity. This cosmic ray detectors network is composed by muon scintillators installed in Nagoya – Japan, Hobart – Australia, São Martinho da Serra – Brazil and Kuwait City – Kuwait. Analyzing the GMDN data together with data from SOHO and/or ACE satellites it is possible to study the behavior of the cosmic ray particles and presents a Heliosphere characterization during the minimum solar activity, giving a better understanding of the cosmic ray particles modulation.