classification of M6.8. We present in this work a detailed analysis of both flares including EUV and *Hα* images, and radio density flux in the range from 1.5 to 405 GHz from different radiotelescopes. Submillimeter data were gathered by means of the Submillimeter Solar Telescope (SST). Microwave spectrum of the first flare, shows the classical gyrosynchrotron characteristics of accelerated power law electrons while the second one exhibits flat shape between 2 and 20 GHz. Flat spectra are considered as originated from inhomogeneous ambient. EUV images from the EIT telescope show a complex system of magnetic arcs. *Hα* images from the HASTA telescope reveal three kernels which brighten in sequence. We conclude that 1) there was a loop-loop interaction and 2) the consequences of the first flare implied in an inhomogeneous environment where the second one developed.

PAINEL 149

COROTATING INTERACTION REGIONS OBSERVED NEAR EARTH DURING SOLAR ACYCLE 23: PROPERTIES AND EFFECTS IN THE POLAR CUSPS

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During the descending phase of solar cycles, coronal holes reach low latitudes on the solar surface. Fast solar wind streams flowing from these coronal holes interact with slow solar wind streams and create regions of compressed plasma and magnetic field in their interface - the corotating interaction regions (CIRs). CIRs can have important geomagnetic effects, due to the enhanced magnetic field in the interaction region and also due to the presence of Alfvenic fluctuations in the high-speed stream. We study in this work the properties of CIRs observed near Earth's orbit by using plasma and magnetic field data from ACE spacecraft. We also study their geomagnetic effects by using Dst and AE indices, and plasma and magnetic field observations in the Earth's magnetospheric cusps with data from Cluster spacecraft. The properties - solar wind speed, magnetic field and electric field values - of CIRs are compared with those of other interplanetary structures. The variability of plasma density and magnetic field in the Cusp regions is shown to be enhanced during CIR periods as compared with periods of quiet magnetic activity. This implies in a higher energy transfer from solar wind to Cusp region during the CIR periods.

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DECIMETRIC TYPE U SOLAR BURST RECORDED BY THE BRAZILIAN SOLAR SPECTROSCOPE

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The Brazilian Solar Spectroscope (BSS) was put into regular operation in 1998, with capability to record fine structures in the decimetric radio emission. Since then it recorded more than 400 solar flares in decimetric range. Here we present the results of the analysis of a type U bursts observed by BSS on October 25, 2001 at 15:13:20 UT, in the frequency range of about of 1950-2050 MHz. Assuming that an U type bursts is caused by the electron beam traveling along the closed magnetic loops, the physical parameters of the source can be estimated from the observational parameters of the burst. The burst analysed had a turning frequency of about 2000 MHz, with an ascending branch in the range of 2070-1960 Mhz and a descending branch in the range of 1960-2060 MHz. The high spectral and temporal resolutions data from BSS us to determine the frequency drift rates of the ascending and descending branch of the U structure recorded, being 42.3 and 55.6 MHz/s, respectively. Also, using the total length of the ascending and descending branch the temperature of the coronal loop apex was obtained as of the order of 10 MK. The same analysis will be extended to other type U bursts recorded by BSS. The results obtained will be presented and discussed in comparison with the results reported previously for the other frequency ranges.

PAINEL 151

SISTEMA DE ALERTA E DISTRIBUIÇÃO EM TEMPO-REAL DE INTENSIDADE E COORDENADAS DE EXPLOSÕES SOLARES

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Este projeto visa a implementação de um sistema de alta performance para distribuição em tempo-real de dados e informações em rádio acerca de explosões solares. Estes alertas tentarão identificar, com o máximo de brevidade e precisão, as coordenadas heliográficas desses eventos no exato momento da observação. A observação solar é realizada de forma automatizada pelo rádio-telescópio SPUA (Solar Patrol Un-phased Array), um arranjo de três antenas localizado no Rádio-Observatório do Itapetinga, em Atibaia-SP. Este equipamento monitora a densidade de fluxo solar na freqüência de 12 GHz combinando o sinal de seus três receptores. Com isto é realizado o rastreio automático da fonte emissora (Sol) e