

SPIKES TAXONOMY NEEDED. MULTI-SPECTRAL CHARACTERIZATION OF SOLAR SHORT DURATION RADIOBURSTS

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We pay attention to the characteristics of millisecond spikes in relation to the general activity in which they are included, processes with very different time scales. To analyze this aspect we selected the Bastille Day Flare radio emission observations provided by the Trieste Astronomical Observatory (OAT) radio polarimeters at 237, 327, 408, 610, 1420 and 2695 MHz, with 100 Hz temporal resolution. Some complementary data were obtained from open sources in Internet (Goes X-R, SOHO images, etc.) The waiting time distribution between individual maxima (flux ≥ 10 sfu) was calculated searching for self-organized criticality. Left and right polarization components were analyzed separately. The analyzed temporal interval presents two activity periods. The first related to HXR and gamma emission with both polarized components millisecond events, and the following activity period is dominated by the right polarized component events. This behavior is considered evidence of two different dominant generation mechanisms for millisecond events. Without solving this problem will be difficult to obtain a homogeneous data to compare with observations and accept or reject generation hypothesis. An analysis of the millisecond events profile could help to discriminate between different generation hypotheses