

Period variations of radio pulsations observed during decay phase of the June 06, 2000 flare

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The 22 minutes lasting interval of broadband dm-radio pulsations observed during decay phase of the June 6, 2000 flare by Brazilian Solar Spectroscope (BSS) and Ondrejov radiospectrograph in frequency range 1200-4500 MHz have been analyzed for its complex temporal variability. To understand the global relationship between radio fluxes on lower and higher frequencies and to recognize different emission mechanisms, we have made the cross-correlation of the radio fluxes at different frequencies during time intervals under study. We have realized that the dominant periods are not spread during whole 22 minutes time interval but their appearance is concentrated into 7 shorter time subintervals that we have then studied in detail. These subintervals last 9-33 s, on average 21 s. The pulsations inside the subintervals usually have higher intensity than the other ones and characteristic dominant periods of these quasi-regular pulsations are 0.5-78.8 s. We were interested in possible differences among dominant periods of individual time intervals as well as between the periods at frequencies below and above 2000 MHz. Periods > 60 s are rather rare. The periods < 40 s occur more frequently at frequencies below 2000 MHz than at frequencies above 2000 MHz. Occurrence of the periods > 40 s is similar at frequencies below and above 2000 MHz. Results are compared with TRACE and EIT/SOHO images and discussed in framework of multi-scaling flare loop interactions.

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