Solar high energy observations within SEPServer project: spatially resolved X-ray observations of flares associated with SEP events

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Abstract

Solar Energetic Particles (SEP) are associated with solar flares and their (sometimes) related fast coronal mass ejections (CMEs). The main aim of the FP7 SEPServer project is to build an on-line server that will provide the space research community with in situ SEP measurements and related electromagnetic observations for a set of solar flares and SEP events that occurred during the last solar cycle. Within this project, we are using high energy data recorded by RHESSI spacecraft to examine the signatures of long duration hard-X ray emission in association with the production of SEPs, and the potential link with CMEs. We shall investigate whether these observations may put some light on the origin of the longitudinal spread of SEP events.

Keywords: HXR emission, solar flares, CMEs, SEP events

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