



## **Hard X-ray, EUV, and radio signatures in relation to solar energetic particles**

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In this report we present analysis of well-observed electromagnetic signatures related to solar energetic particles (SEPs). We selected cases with simultaneous observations in hard X-ray, EUV and radio wavelengths of the SEP-related solar flares and analyzed the properties of the emission (light curves, spectrum and temporal evolution). The non-thermal potential of solar flares is tested in terms of correlation studies between the particle intensities (protons and electrons) and the flare flux at various wavelengths. The results are compared with the outcomes when using GOES soft X-ray flare class. The solar origin of SEP events in terms of solar flares is discussed.