



Diagnostics of solar flare energetic electrons from combined hard X-ray/gamma-ray and centimeter/millimeter observations

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Hard X-ray/gamma-ray and centimetre/millimetre wave observations provide complementary information on the energetic electrons which are accelerated in solar flares. I shall summarize the results obtained from the comparison of the HXR/GR and cm/mm observations of the 3 November 2003 flare at 09 50 UT which was observed in the Hard X-ray /Gamma-ray domain by RHESSI (Ramaty High Energy Solar Spectroscopic Imager) and at centimeter millimeter wavelengths by the Bumishus observatory and the Bern nulling interferometer. This event was discussed in Dauphin et al. (Adv. Space. Res, 35, 1805, 2005 and A&A, 455,399, 2006) for the aspects related to the comparison of radio and X-ray emissions and the link between a rising soft X-ray loop and the onset of a type II burst. I shall further discuss here the shape of the HXR GR continuum observed by RHESSI and the relationship between HXR GR and centimetre/millimeter emitting electrons and deduce the energy content in accelerated electrons. The present results will be discussed with respect to other published observations on the comparison between bremsstrahlung and gyrosynchrotron emitting electrons