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# Energetic electrons in solar flares: observational support for acceleration processes linked to magnetic reconnection

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Efficient electron (and ion) acceleration is produced in association with solar flares. Energetic particles play a major role in the active Sun since they contain a large amount of the magnetic energy released during flares. Energetic electrons (and ions) interact with the solar atmosphere and produce high-energy X-rays and γ-rays. Energetic electrons also produce radio emission in a large frequency band through gyrosynchrotron emission processes in the magnetic fields of flaring active regions and conversion of plasma waves when e.g. propagating to the high corona towards the interplanetary medium. It is currently admitted that solar flares are powered by magnetic energy previously stored in the coronal magnetic field and that magnetic energy release is likely to occur on coronal currents sheets along regions of strong gradient of magnetic connectivity. However, understanding the connection between particle acceleration processes and the topology of the complex magnetic structures present in the corona is still a challenging issue. In this talk, we shall review some recent results derived from X-ray and radio imaging spectroscopy of solar flares bringing some new observational constraints on the localization of HXR/radio sources with respect to current sheets, termination shocks in the corona derived from EUV observations.