



## **Electron Acceleration at the Solar Flare Reconnection Outflow shocks**

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In the solar corona magnetic field energy is suddenly released by magnetic reconnection during flares. Hot jets appear in the outflow region of the reconnection site. If these jets penetrate into the surrounding coronal plasma standing shocks are established. There, electrons can be accelerated by shock drift acceleration up to high energies. This mechanism is treated in a fully relativistic manner. If the accelerated electrons travel along the magnetic field lines towards the denser chromosphere, they can emit hard X-ray radiation via bremsstrahlung. The theoretically obtained results (e. g. electron distribution functions) are compared with hard X-ray data recorded by RHESSI and INTEGRAL during the solar event on October 28, 2003, at which signatures of highly relativistic electrons has been observed.