



The dynamics of the Earth radiation belts

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The radiation belts are particles trapped by the magnetic field. Nevertheless, they are very dynamic, from the time scale of the magnetic storm to the solar cycle. The effect of different perturbations in the solar wind (Coronal Mass Ejections, Shocks, Corotating Interaction Regions), as well as Solar Energetic Particle Events will be discussed. These events normally increase the populations in the radiation belts, and therefore the energy stored in the inner magnetospheric region. The energy release linked to radiation belt particle precipitation will also be discussed.