



Low altitude radiation belt dynamics as observed by the Energetic Particle Telescope (EPT)

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Accurate measurements of particle fluxes (electrons, protons,...) are required for studies of the physical processes involved in the dynamics of the radiation belts but also for radiation environment modeling and space weather applications. The Energetic Particle Telescope (EPT) is a science-class particle spectrometer which is currently measuring energy spectra of electrons (0.5 - 20 MeV), protons (9 - 300 MeV) and He-ions (38 - 1200 MeV) onboard the Proba-V satellite which was launched on the 7th May 2013 onto a sun-synchronous circular low earth orbit at 820 km altitude and 98.7° inclination. The variation of the electron and proton population is analyzed in terms of event-related flux enhancement and subsequent flux decay characteristics. Regions where fluxes are relatively stable or undergo prompt drop-out are identified for specific analysis of involved physical processes. The presentation will focus on the first results in particle flux variation characterization. Comparison to former and recent measurements will be presented whenever applicable.