



Energetic electron precipitation at Titan

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We use the data of the Low Energy Measurement System sensor of the Magnetospheric Imaging Instrument to investigate the bite-out features of energetic electrons (primarily in the 30-200 keV energy range) in the vicinity of Titan. Our analysis involves Titan encounters TA-T71 (October 2004-July-2010). The electrons are bouncing between mirror points along the magnetic field lines of Saturn, but as they reach the upper atmosphere of Titan, they will take part in ionization processes and eventually disappear from the flow. The altitude distribution of these signatures have been investigated together with the magnetic field directions at the sites of the drop-out, in order to better estimate the incoming flux tube geometry. It is important, because the magnetic field direction - together with the incoming flow directions - varies frequently at Titan and can have an effect on the altitude where the absorption takes place. These results might be useful for modellers too.