

Energetic electron beams in the magnetosphere of Saturn: Cassini MIMI results

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One of the scientific investigations onboard the Cassini spacecraft is the Magnetosphere Imaging Instrument MIMI designed to measure neutral and charged particles in Saturn's magnetosphere. One of the MIMI sensors is the Low Energy Magnetospheric Measurement System LEMMS to detect energetic ions and electrons in the keV to MeV range. During the three years of the Cassini mission in Saturn's magnetosphere LEMMS detected a series of electron beams along the magnetic field directions, partially published in the paper by Saur et al., 2005. In this paper we will update these results and show how these observed beams are distributed in the magnetosphere and how they map into the auroral zone of the planet.