

Relativistic electron flux decay and recovery

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Introduction & Motivation

Relativistic electron flux dynamics in the Earth's inner magnetosphere are largely controlled by electron scattering into the atmosphere via resonant interactions with whistler-mode and electromagnetic ion cyclotron (EMIC) waves.

ELFIN and POES spacecrafts recording trapped and precipitating particle fluxes at low altitude, together GOES, Van Allen Probes, ERG (ARASE) and MMS spacecrafts measuring waves and trapped particle fluxes at high altitude, provide a unique opportunity to study the dynamics of relativistic electron fluxes and their relation to wave activity.

Method

