



Contribution ID: 207

Type: Oral contribution

SECONDARY POSITRONS AND ELECTRONS OBSERVED BY THE PAMELA SPECTROMETER

Friday, 31 July 2015 11:00 (15 minutes)

Precise measurements of electron and positron fluxes in energy range from 80 MeV to several GeV below the geomagnetic cutoff rigidity were carried out using the PAMELA magnetic spectrometer. The instrument was launched on June 15th 2006 onboard the Resurs-DK satellite on an orbit with the inclination 70 degrees and the altitude 350-600 km. It is continue to collect data so far. The procedure of trajectories calculations in the geomagnetic filed gives a way to separate stably trapped and albedo components produced in interactions of cosmic ray protons with the residual atmosphere. The work presents spatial distributions of secondary electrons and positrons in the near Earth space including the South Atlantic Anomaly. Altitudinal, latitudinal, longitudinal and temporal dependences of the fluxes are discussed. These results are particularly interesting for accurate definition of radiation models on the low Earth orbits.

Collaboration

- not specified -

Registration number following "ICRC2015-I"

223

Primary author: MIKHAILOV, Vladimir (NRNU MEPHI)**Co-author:** Dr MOCCHIUTTI, Emiliano (INFN, Sezione di Trieste, Italy)**Presenters:** Dr MOCCHIUTTI, Emiliano (INFN, Sezione di Trieste, Italy); MIKHAILOV, Vladimir (NRNU MEPHI)**Session Classification:** Parallel CR04 e+ e-**Track Classification:** CR-EX