Contribution ID : **741** Type : **Oral talk**

Precision measurements of cosmic ray electron and positron spectra above 50 MeV with the PAMELA magnetic spectrometer

Friday, 9 October 2020 12:45 (15)

The PAMELA experiment with magnetic spectrometer operated almost ten years on board of the Resurs DK1 satellite. The satellite was launched on 15 June 2006 on polar orbit with an inclination of 70°and an altitude of 350–610 km. The spectrometer continuously measured charged cosmic ray particles in wide energy range from about 50 MeV up to several TeVs. In this work the spectra of electrons and positrons averaged over several months were obtained from July of 2006 until January 2016, i.e. from the end of 23th and at the beginning of 24th solar cycle including the period of polarity interplanetary magnetic field reversal. This precise long duration time-dependent measurements of the electron and positron spectra are important to estimate possible contributions of exotic cosmic ray sources such as dark matter annihilation or decay with low and high masses.

Primary author(s) : MIKHAILOV, Vladimir (NRNU MEPHI); PAMELA COLLABORATION

Presenter(s) : MIKHAILOV, Vladimir (NRNU MEPHI)

Session Classification : Astroparticle Physics

Track Classification : Astroparticle physics