

# STUDY OF THE MODULATION OF GALACTIC POSITRONS AND ELECTRONS FROM 2006-2016 WITH THE PAMELA EXPERIMENT

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The PAMELA experiment had operated almost ten years on board of the Resurs DK1 satellite. The satellite was launched on 15 June 2006 and placed in orbit with an inclination of 70° and an altitude of 350–610 km. The experiment continuously measured electron and positron fluxes of galactic cosmic rays in a wide energy range from 50 MeV to hundreds of GeV. The spectra of electrons and positrons were analysed from the end of 23th until the beginning of 24th solar cycle including the prolonged deep solar minimum period from 2006 to the end of 2009 and the solar magnetic polarity reversal period in 2012-2014. Here, we present these spectra along with a comparison with experimental data obtained by the AMS-02 instrument, which has been operating in orbit since 2011, and with numerical solutions of a comprehensive three-dimensional drift model of solar modulation. The comparison of observations and modelling provides valuable insight into how the diffusion process changes and to what extent drift effects occur during a complete solar cycle.

## Keywords

electrons, positrons, magnetic spectrometer, heliospheric modulation

## Collaboration

PAMELA

## other Collaboration

## Subcategory

Experimental Results

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