Contribution ID: **243** Type: **Contributed talk**

Cosmic Rays Investigation by the PAMELA experiment

Tuesday 25 July 2017 17:01 (15 minutes)

PAMELA (Payload for Antimatter Matter Exploration and Light-nuclei Astrophysics) is a satellite-borne experiment. It was launched on June 15th 2006 from the Baikonur space centre on board the Russian Resurs-DK1 satellite. For about 11 years PAMELA took data, giving a fundamental contribution to the cosmic ray physics. It made high-precision measurements of the charged component of the cosmic radiation challenging the standard model of the mechanisms of production, acceleration and propagation of cosmic rays in the galaxy and in the heliosphere.
PAMELA gave results on different topics on a very wide range of energy. Moreover, the long life of PAMELA gives the possibility to study the variation of the proton, electron and positron spectra during the last solar minimum. The time dependence of the cosmic-ray protons and helium nuclei from the solar minimum through the following period of solar maximum activity is currently being studied. Low energy particle spectra were accurately measured also for various solar events that occurred during the PAMELA mission.
In this talk a review of main PAMELA results, together with the latest analysis updates, will be shown.

Author: PANICO, Beatrice (INFN - National Institute for Nuclear Physics)

Presenter: PANICO, Beatrice (INFN - National Institute for Nuclear Physics)

Session Classification: Cosmology, Gravitational Waves, & Cosmic Rays

Track Classification: Cosmic Rays