

THE PAMELA EXPERIMENT

PAMELA collaboration

The PAMELA equipment will be launched at the end of 2002 on-board of the Resurs-DK satellite. It is a telescope conceived to study mainly the antiparticle component of the Cosmic Rays. PAMELA is composed of: a magnetic spectrometer equipped with silicon microstrip detectors; a silicon/tungsten sampling calorimeter; a transition radiation detector; a time of flight detector; an anti-coincidence system and a scintillator shower detector. The redundancy of the detectors and their particle identification capability allow to measure with high statistics the antiproton flux in the energy range from 80 MeV to 190 GeV and the positron flux from 50 MeV to 270 GeV. PAMELA will also seek antinuclei up to 30 GeV/n at a sensitivity level of 10^{-7} in the $\overline{\text{He}}/\text{He}$ ratio.