

## MAGNETICALLY TRAPPED PROTONS WITH $E > 100$ MEV IN NEAR EARTH BELTS WITH THE AMS EXPERIMENT

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Accurate measurements of proton fluxes at kinetic energies above 100 MeV have been performed by the AMS instrument at altitudes of 370-390 Km and in the latitude interval  $\pm 51.7^\circ$ .

We present an analysis of the AMS data, focussed on the study of the magnetically trapped component of these fluxes. As a result, the flux maps as a function of the magnetic variables  $(L, \alpha_o)$  are determined in the interval  $0.95 < L < 3$ ,  $0^\circ < \alpha_o < 90^\circ$  for protons with  $E < 10$  GeV. The results are compared with existing data at lower energies and in similar  $(L, \alpha_o)$  range.

The properties of the trapped protons are investigated in terms of their residence times and geographical origin by means of a tracing technique, the resulting distributions are discussed and related to the characteristics of the drift shells encountered by AMS.