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Latest Alpha Magnetic Spectrometer results : positron fraction and pbar/p ratio.

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A precision measurement by AMS of the positron fraction in primary cosmic rays in the energy range from 0.5 to 500 GeV based on 10.9 million positron and electron events is presented. The measured positron fraction shows a rapid decrease from 1 to ~8 GeV followed by a steady increase and reaching a maximum value at 275+-32 GeV. The new results show, for the first time, that above ˜275 GeV the positron fraction no longer exhibits an increase with energy and is compatible with the minimal flux model with the exponential cutoff of ˜550 GeV. The progress report on the results for the pbar/p ratio from 1 to 450 GV are presented for the first time.

Collaboration

AMS

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