



Measurement of the cosmic-ray antiproton spectrum at solar minimum with a long-duration balloon flight over Antarctica

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The energy spectrum of cosmic-ray antiprotons from 0.17 to 3.5 GeV has been measured using 7886 antiprotons detected by BESS-Polar II during a long-duration flight over Antarctica near solar minimum in December 2007 and January 2008. This shows good consistency with secondary antiproton calculations. Cosmologically primary antiprotons have been investigated by comparing measured and calculated antiproton spectra. BESS-Polar II data show no evidence of primary antiprotons from evaporation of primordial black holes.

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