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## Search for Cosmic-Ray Antideuterons with BESS-Polar II

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High-precision measurement of the cosmic-ray antiproton spectrum and sensitive search for cosmological antihelium has been published using the data from BESS-Polar II (Balloon-borne Experiment with a Superconducting Spectrometer) flight in 2007/2008 for core study of the early Universe using elementary particle measurements.

The most sensitive antideuteron search reported used the data obtained by BESS97, BESS98, BESS99, and BESS00, which include the solar minimum period in 1997. We performed a search for antideuterons with unprecedented sensitivity using BESS-Polar II data that is more than ten times the statistics of BESS97 in near solar minimum conditions. The search for antideuteron probe possible exotic sources, such as dark-matter candidates.

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