

Prospects of antideuteron detection from dark matter annihilations/decays at AMS-02 and GAPS

Wednesday 26 September 2012 15:50 (20 minutes)

The search for cosmic antideuterons has been proposed as a promising method to indirectly detect dark matter, due to the very small background flux from spallations expected at the energies relevant to experiments. The antideuteron flux from dark matter annihilation or decays is, however, severely constrained by the non-observation of an excess in the antiproton-to-proton fraction measured by PAMELA. In this talk we discuss, for various dark matter annihilation and decay channels, the prospects to observe a signal at AMS-02 and GAPS from requiring that the associated antiproton flux is in agreement with the PAMELA data.

Primary author: Mr WILD, Sebastian (TU München)

Presenter: Mr WILD, Sebastian (TU München)

Session Classification: Parallel Session 2: Cosmology & Astroparticle Physics

Track Classification: Cosmology & Astroparticle Physics