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## Cosmic-ray antiproton constraints on WIMP annihilation in our Galaxy

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The latest years have seen steady progresses in weakly interacting massive particle (WIMP) dark matter (DM) searches, with hints of possible signals suggested both in direct and indirect detection. Cosmic-ray (CR) antiprotons play a key role in this context, since WIMP annihilations can be a copious source of antiprotons, and, at the same time, the antiproton flux from conventional astrophysical sources is predicted with fair accuracy and makes for a potentially very good signal/background ratio.

In this talk, we focus on antiprotons as a tool to set constraints on DM models. In particular, we probe carefully the uncertainties associated with propagation of CRs both in the Galaxy and in the Solar System in the light of upcoming CR spectral data from the AMS-02 observatory.

We show that current antiproton data can place tight constraints on DM models, excluding some of those suggested in connection with indirect and direct searches.

Finally, we compare our findings with the constraints that we have obtained from the diffuse gamma-rays on a variety of assumptions on DM particle physics properties.

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