

# Exploring dark matter with AMS through electroweak corrections

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## Abstract

The AMS experiment is now measuring charged cosmic rays fluxes with an unprecedented precision. It is thus necessary to provide appropriate predictions for dark matter signals. To that end, computing electroweak corrections is an important task. It is particularly relevant for leptophilic models where anti-protons can be produced through the decay of massive gauge bosons. In this talk, we present a new calculation of electroweak radiation for vector dark matter annihilation. From the lack of particular spectral features in the AMS positron flux, we derive upper limits on the annihilation cross section. We furthermore provide predictions for the flux of anti-protons from electroweak radiation, which will be probed by AMS in the future.

## Summary

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