

Estimating QCD uncertainties on anti-proton spectra from dark-matter annihilation

Monday 22 November 2021 13:40 (20 minutes)

In this talk, I discuss the progress on the particle physics modeling of anti-proton spectra from dark matter indirect detection searches and the QCD uncertainties on these predictions. First, I discuss the challenges in the measurements of baryon differential yields at LEP and the way we used to deal with these. Then, we discuss the up-to date fits of the fragmentation function including baryon component and the resulting QCD uncertainties. The results of this study will be published on Zenodo and GitHub.

Author: Dr JUEID, Adil (Korea Institute for Advanced Study)

Co-authors: Prof. SKANDS, Peter (Monash University); Prof. RUIZ DE AUSTRI BAZAN, Roberto (IFIC, Valencia University)

Presenter: Dr JUEID, Adil (Korea Institute for Advanced Study)

Session Classification: Dark Matter

Track Classification: Dark matter