Electroweak corrections with MadDM v.3.0

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This documents summarises the status of the studies of the discrepancies found in the energy spectra provided in the PPPC4DMIDtables and the spectra produced with MadDM v.3.0, when considering electro weak corrections.

Contents

1 A look at the PPPC Electroweak Corrections

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1 PPPC Electroweak Corrections

In this section the energy spectra for the Cosmic Rays $CRs = e^+, \nu_e, \gamma$ extracted from the PPPC4DMIDand PPPC4DMID_ewTables are compared, to get an idea of the effect of the EW correction (according the PPPC4DMIDcollaboration).

2 MadDM vs PPPC Electroweak Corrections

Acknowledgments

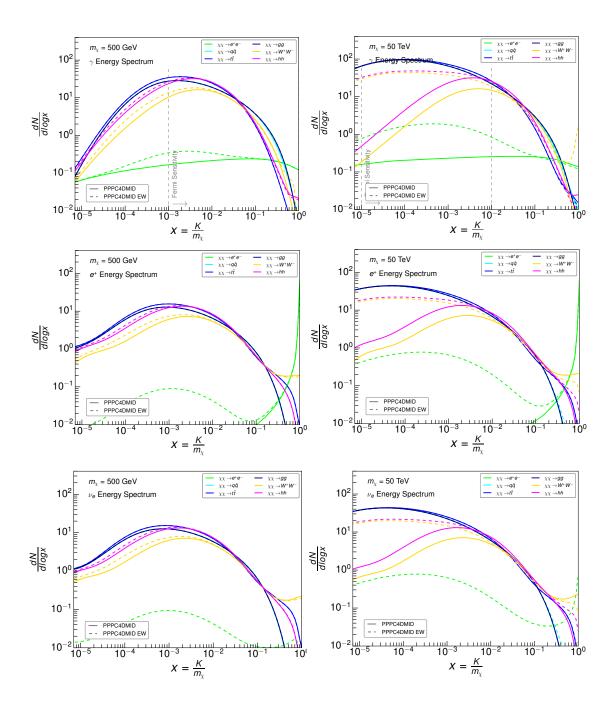


Figure 1. Energy spectra $(\gamma,^+, \nu_e)$ for m_{χ} =500 GeV (left) and 50 TeV (right) extracted from the PPPC4DMID_and PPPC4DMID_ewtables, from selected annihilation channels.

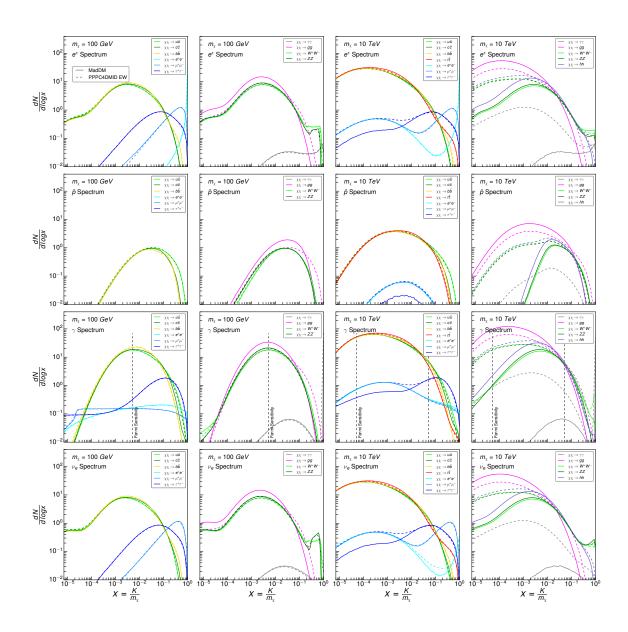


Figure 2. EW Spectra comparison MadDM v.3.0vs PPPC4DMID_ew(published in the paper).