

Direct and Indirect Detection of Dark Matter

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Inverse Compton emission from heavy WIMP annihilations in the Galactic Centre

In gamma-ray astronomy typically only the direct photon component is considered as signal when searching for annihilating WIMPs. This means that only photons that are produced during the WIMP annihilation and the consecutive hadronisation are taken into account. There is however also a non-negligible contribution to the gamma-ray signal that arises from the electrons that are produced in the annihilation. They can enhance the WIMP signal through high energy photons produced in Inverse Compton processes by these electrons. In this poster we want to highlight this contribution as expected in the Galactic Centre region and encourage people to account for this component when searching for WIMP annihilation using gamma-rays.

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