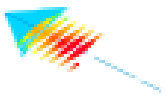

ID de la contribución : **18** Tipo : **no especificado**

Indirect search for dark matter in the Galactic Centre with IceCube

martes, 18 de mayo de 2021 17:40 (20)

Neutrino telescopes, such as IceCube, can be used to conduct indirect dark matter searches. A common assumption is that dark matter consists of Weakly Interacting Massive Particles (WIMPs), which are expected to produce standard model particles when they annihilate or decay. IceCube could then detect the neutrinos generated by these standard model particles. Since the Milky Way is expected to be immersed in a dark matter halo whose density increases towards its centre, the Galactic Centre is a designated target for indirect searches. In this contribution, we present the sensitivities of the search for dark matter in the Galactic Centre based on IceCube data, probing annihilation through $\nu\bar{\nu}$, $\mu^+\mu^-$, $\tau^+\tau^-$, W^+W^- and $b\bar{b}$. The sensitivities presented here show considerable improvements when compared to results from previous IceCube searches and other neutrino telescopes in the energy range considered.

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Clasificación de la sesión : Dark matter and exotics

Clasificación de temáticas : Dark matter and exotics