



Contribution ID: 22

Type: **not specified**

Indirect Dark Matter Searches in Dwarf Irregular Galaxies

Wednesday 30 August 2023 12:10 (30 minutes)

Gravitational evidences at different cosmological scales hint towards the existence of a dark component of the Universe, which amounts up to the 85% of its matter density. Several theoretical particle models for the dark matter (DM) predict that they are expected to weakly interact with standard model particles. From these interactions, one of the most promising channels are gamma-rays. However, despite all the efforts, DM has eluded any clear detection. Among the different astrophysical objects that we can consider as targets for our searches, dwarf irregular galaxies (dIrrs) have gained a lot of attention in the last years. We will revisit their science case, the existing gamma-ray studies carried on these objects and their results. Finally, we will put these results in context with respect to DM gamma-ray searches in other objects and explore future prospects to exploit, even further, the capabilities of dIrrs to unveil the nature of dark matter.

Presenter: PÉREZ-ROMERO, Judit

Session Classification: Plenary Session - Chair Viviana Gammaldi