



Contribution ID: 216

Type: **Talk**

Dark matter searches in dwarf irregular galaxies with gamma-ray observatories.

Tuesday 9 September 2025 11:00 (40 minutes)

I will review the state-of-the-art of dark matter (DM) searches in dwarf irregular galaxies (dIrrs). dIrrs have been proposed as new astrophysical targets of interest for DM searches in gamma rays, complementary to dwarf spheroidal galaxies, galaxy clusters and the Galactic center. dIrrs show high DM content (with respect to the luminous matter), relatively close distance and low gamma-ray background: all these characteristics make dIrrs interesting targets for DM searches. After the first proof-of-concept paper, dIrr galaxies have been studied by both satellite and ground-based observatories, such as Fermi-LAT, HAWC and HESS. I will review the main results obtained so far, as well as preliminary observational prospects for the upcoming Cherenkov Telescope Array Observatory.

References

Ready to submission CTAO paper, arXiv number coming soon

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