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Latest results on dark matter searches using the H.E.S.S. telescopes

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In this talk, we present the latest results on dark matter searches using the High Energy Stereoscopic System (H.E.S.S.) located in Namibia. Dark matter is searched for looking for high-energy gamma-ray events in the most promising regions of the sky. Dark matter particles could self-annihilate and produce high-energy gamma rays, either as spectral lines or as continous spectrum. The inner region of the Milky Way halo harbors a large amount of dark matter, and we report a search for the annihilation of dark matter particle in this region. Nearby dwarf spheroidal galaxies, which are satellites of the Milky Way, are the most dark matter dominated objects in the Universe and are not expected to be the site of non-thermal high-energy gamma-ray emission or intense star formation, and are thus promising candidates for indirect dark matter searches. We present the latest results for the dark matter searches from the H.E.S.S. observation of these objects. Alternatively, dark matter could reveal indirectly through the measure of the cosmic-ray electron and positron energy spectrum, and we present its latest measurement by H.E.S.S. up to 20 TeV energies.

Primary author: Dr POIREAU, Vincent (LAPP/CNRS)

Presenter: Dr POIREAU, Vincent (LAPP/CNRS)

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