

# Dark Matter search in the Galactic Center with the ARCA KM3NeT detector

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The KM3NeT detector is a next generation neutrino telescope currently under construction in the Mediterranean sea. The detector is distributed in two sites each with a specific goal. The first of the detectors, called ARCA (Astroparticle Research with Cosmics in the Abyss) and located South of Sicily, is focused on astrophysical research. The second one, ORCA (Oscillation Research with Cosmics in the Abyss called ORCA) and located south of France, is focused on the study of neutrino properties. Six detection units in each of the sites are currently operating, some of them since more than one year. More detection units are planned to be deployed during the rest of the year. KM3NeT can look for some forms of dark matter through the effects of its annihilation in astrophysical objects.

We present in this talk the different components and procedures required to compute the sensitivity of the ARCA detector to dark matter annihilation in the Galactic Centre. We show some of preliminary results and how they compare to other neutrino telescopes and other dark matter search techniques.

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