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Are Dwarf Spheroidal and Ultra Faint Dwarf galaxies the most dark matter dominated stellar systems?

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Dwarf Spheroidal galaxies and Ultra Faint Dwarf galaxies orbiting around the Milky Way are commonly considered as dynamically “hot” systems so that the high velocity dispersions measured could be compatible with a virial state just if their total mass is very large respect to the luminous mass. This led to the consideration that they are the most dark matter (DM) dominated stellar systems in the local Universe. If this is true, they would constitute interesting targets for “direct” observation of DM particles through their decay and/or annihilation, processes whose signature would be observable in gamma via, for instance, the Cherenkov Telescope Array (CTA) whose construction is in progress.

In this talk I would make a short review of data and discuss the compatibility of alternatives to the hypothesis of a huge quantity of DM with observed data.

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