

DM annihilations from a density spike in Milkyway galaxy

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We used H.E.S.S. gamma-ray observations of Sgr A to derive novel limits on the Dark Matter (DM) annihilation cross-section. I will discuss their dependence on uncertainties i) in the DM halo profile, which we varied from peaked to cored, and ii) in the shape of the DM spike around Sgr A dynamically heated by the nuclear star cluster. For peaked halo profiles and depending on the heating of the spike, our limits are the strongest existing ones for DM masses above a few TeV.

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