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(G*) The impact of the Large Magellanic Cloud on dark matter indirect detection signals

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The Milky Way's (MW) most massive satellite, the Large Magellanic Cloud (LMC) has just passed its first pericenter approach. The presence of the LMC has a considerable impact on the position and velocity distributions of DM particles in the MW. This directly affects the expected DM annihilation rate, especially in the case of velocity-dependent annihilation models since the LMC may boost the relative DM velocity distributions. I will discuss the impact of the LMC using MW-LMC analogues in the Auriga magneto-hydrodynamical simulations.

Keyword-1

dark matter

Keyword-2

simulations

Keyword-3

indirect detection

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