

Dark matter distribution in the Milky Way: microlensing and dynamical constraints

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Dark matter searches are entering a particularly exciting phase where the complementarity between different signals may finally be explored. This situation calls for a more accurate description of the dark matter distribution in our Galaxy. In this context, I will show that gravitational microlensing and dynamical observables can be combined to set interesting constraints on the dark matter local density and profile slope. The most commonly discussed dark matter profiles are found compatible with microlensing and dynamical observations, while the local dark matter density is constrained to be in the range $0.20\text{--}0.56 \text{ GeV/cm}^3$. Future directions will be discussed.

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