THE WHITE DWARF POPULATION OF TRI-AXIAL HALOES

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The nature of the several microlensing events observed by the MACHO team towards the Large Magellanic Cloud (LMC) is still a subject of debate. Substellar objects and stars with masses larger than $\sim 1\,M_\odot$ have been ruled out as major components of a Massive Astrophysical Halo Object (MACHO) Galactic Halo. However, stars with near half-solar mass, in particular white dwarfs, appear to be the best candidates to explain the observed microlensing events. On the other hand, observational evidence based on the structure of the debris from the Sagittarius dwarf support the hypothesis of a non-spherical Galactic halo. We use a tri-axial halo model based on a dark logarithmic halo potential and advanced Monte Carlo techniques to study the contribution of the halo white dwarf population to the dark matter content of the Galaxy.

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