

Radiative corrections to the Relic Density in the IDM

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The current experimental precision from PLANCK on the extraction of the relic abundance of Dark Matter calls for very precise prediction from the theory side to be able to extract meaningful information. In this study we compute the full set of radiative corrections entering the calculation of the relic density of Dark Matter in the Inert Doublet Model and weigh their impact on its prediction in well motivated regions of parameter space. The calculation is performed with the help of the SloopS code, an automatic code for predictions beyond leading order in cosmology, astrophysics and cosmology.

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