

NLO electroweak potentials for minimal DM and beyond

Thursday 23 September 2021 09:50 (15 minutes)

In this talk, I will discuss the one-loop correction to the static potential induced by photon, Z or W-boson exchange at tree-level for arbitrary SM multiplets. The correction is relevant, e.g., in the Sommerfeld effect calculation for heavy WIMP annihilation. We discuss the “Casimir-like” scaling of the result that makes the NLO correction a “low-energy” property of the SM gauge bosons. Furthermore, we present the phenomenology of the NLO correction and the analytically known asymptotic limits.

Do you wish to attend the workshop on-site?

yes

Summary

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Session Classification: Parallel Session: Phenomenology

Track Classification: Particle Phenomenology