

TeV scale MSSM Dark Matter and the electroweak Sommerfeld effect

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For heavy MSSM dark matter with a dominant wino dark matter, resummation of large quantum corrections due to the electroweak force (the “Sommerfeld” effect) is imperative for a reliable calculation of the annihilation cross section. In this talk I first discuss how this is done within a non-relativistic EFT approximation to the full MSSM. It is then investigated whether dominantly wino dark matter with the correct thermally produced relic density remains viable in the light of strong constraints from the non-observation of cosmic ray and terrestrial dark-matter on nuclei scattering signals.

Author: BENEKE, Martin

Presenter: BENEKE, Martin

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