

Sterile neutrino dark matter production from scalar decay

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1409.4330, 1507.05694, and ongoing work

Summary

Sterile Neutrinos with a mass in the keV range form a good candidate for dark matter. They are naturally produced from neutrino oscillations via their mixing with the active neutrinos. However the production via non-resonant neutrino oscillations has recently been ruled out. Sterile neutrino dark matter production from scalar decay is an attractive possibility to circumvent the astrophysical constraints. I will discuss different realisations of this interesting production mechanism.

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