

Radiate Neutrino masses, keV-scale DM and viable Leptogenesis via sub-TeV new physics

Thursday 5 April 2018 15:45 (15 minutes)

This work is based on the so-called Scotogenic model which enhances the Standard Model with a second Higgs doublet and three right-handed neutrinos as gauge singlets. An additional Z_2 symmetry is proposed under which all new particles are charged.

This allows for a stable DM candidate in the keV-range and a radiative generation of active neutrino masses. Also I want to address the question of baryogenesis in this model framework. A baryon asymmetry is generated via sub-TeV Leptogenesis which incorporates lepton number conserving oscillations among the RH neutrinos and lepton number violating decays of the second Higgs doublet.

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Session Classification: Open Session B)

Track Classification: Default track