

Underground detections of an extra gauge interacting sterile neutrino dark matter

Wednesday, 1 September 2021 17:45 (15)

We show that decay products from sterile neutrino dark matter in extra U(1) models are detectable in both direct dark matter detection experiments and neutrino telescope. The sterile neutrino dark matter interacts with a light gauge boson and decays into neutrinos. Those neutrinos could scatter off nuclei with a large enough recoil energy in direct dark matter detection experiments as WIMPs do.

Reference to paper (DOI or arXiv)

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Session Classification : Discussion Panel Dark Matter 7

Track Classification : Dark Matter and its detection