

2/9/2020, 16.00

Eduardo Peinado Rodriguez (UNAM,Mexico)

<https://us02web.zoom.us/j/86116927567>

Neutrino physics, Dark matter and U(1) symmetries

Neutrino masses and the existence of non-baryonic Dark Matter (DM) are, together with the Baryon asymmetry in the Universe, three pieces of evidence that the Standard Model is not the final theory to describe our nature. In this talk, I will discuss scenarios where the generation of neutrino masses and its Dirac/Majorana nature are linked to the DM sector. In particular, I will focus on scenarios where the connection is coming from a U(1) symmetry, either an anomaly free B-L or the Peccei-Quinn symmetry. I will also discuss scenarios with a U(1)' gauge symmetry in the light of COHERENT data.