Contribution ID: 113

Type: not specified

## WIMP dark matter in a Two-loop Dirac neutrino mass mechanism

Thursday 24 May 2018 15:00 (20 minutes)

Despite great efforts over several decades, neutrinoless double beta decay has not yet been detected and neutrinos could be Dirac particles. In this talk we present a "scotogenic"mechanism relating small neutrino mass and cosmological dark matter. Neutrinos are Dirac fermions with masses arising only in two-loop order through the sector responsible for dark matter. A global spontaneously broken U(1) symmetry leads to a physical Diracon that induces invisible Higgs decays which add up to the Higgs to dark matter mode. This enhances sensitivities to spin-independent WIMP dark matter search below mh/2.

Presenter: Dr PEINADO, EDUARDO (AHEP IFIC UNIVERSIDAD DE VALENCIA)

Session Classification: Parallel Session on Neutrino Mass Models