



Contribution ID: 234

Type: Poster

Scotogenic bounds on Dirac CP phase consistent with Neutrinoless Double Beta Decay in hybrid texture of neutrino mass matrix

Friday 16 December 2022 14:00 (1 hour)

In this work, we find the bounds on Dirac CP phase, which are consistent with Dark Matter(DM) and neutrinoless double beta ($0\nu\beta\beta$) decay in the constrained scenario of hybrid textures of neutrino mass matrix. In our previous work, we obtain a connection between ($0\nu\beta\beta$)-decay and DM. As a result, we get six hybrid textures, which reproduce correct low energy phenomenology. We further note that out of these six hybrid textures one is disallowed by bounds on relic density of DM. Therefore, in total five hybrid textures satisfy both low energy phenomenology and bounds on relic density of DM. After numerical analysis, we find an interesting parameter space between dark matter mass and Dirac CP phase. Thus obtain Dirac CP phase in the range $107.7 - 338.5$ degree.

Session

Neutrino Physics

Authors: .., ANKUSH (Central University of Himachal Pradesh); Ms VERMA, Rishu (Central University of Himachal Pradesh); Prof. CHAUHAN, Bhag Chand (Central University of Himachal Pradesh)

Presenter: .., ANKUSH (Central University of Himachal Pradesh)

Session Classification: Poster - 4