9th International Conference on High Energy Particle and Nuclear Physics in the LHC Era



Contribution ID: 533

Type: parallel

Models of radiative linear seesaw with electrically charged mediators

Thursday 9 January 2025 15:30 (20 minutes)

We propose two versions of radiative linear seesaw models, where electrically charged scalars and vector-like leptons generate the Dirac neutrino mass submatrix at one and two loop levels. In these models, the SM charged lepton masses are generated from a one loop level radiative seesaw mechanism mediated by charged exotic vector-like leptons and electrically neutral scalars running in the loops. These models can successfully accommodate the current amount of dark matter, lepton and baryon asymmetries observed in the Universe, as well as the muon anomalous magnetic moment.

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Session Classification: Parallel session 6: Neutrino Physics (2/2)