



Contribution ID: 135

Type: **Oral presentation (in person)**

Testing the gauged $U(1)_{B-L}$ model for loop induced neutrino mass with dark matter at future colliders

Tuesday, 9 July 2024 11:30 (15 minutes)

We present a new viable benchmark scenario under the current experimental data for the model which can explain the tiny mass of active neutrinos and dark matter. Majorana masses of right handed neutrinos are given by the spontaneous breaking of the $U(1)_{B-L}$ gauge symmetry at the TeV scale, and tiny neutrino mass are radiatively induced by quantum effects of particles of the dark sector including the dark matter candidates. We first show the benchmark points which satisfy current experimental data, and then discuss how this model can be tested at future experiments including electron-positron linear colliders.

Apply for poster award

Primary author: YING, GUOHAO (Osaka University)

Co-authors: KANEMURA, Shinya (Osaka University); MURA, Yushi (Osaka Univ.)

Presenter: YING, GUOHAO (Osaka University)

Session Classification: Higgs, Electroweak

Track Classification: Physics and Detector: Higgs, Electro-Weak