



Contribution ID: 114

Type: Oral presentation (remote)

## Probing BSM neutral gauge boson in high and low energy experiments

*Tuesday 9 July 2024 14:40 (20 minutes)*

Over a period of time neutral BSM gauge boson is becoming important in the high energy as well as low energy experiments. In this talk we would like to present my recent works where we studied  $Z'$ , a neutral chiral gauge boson under a general  $U(1)$  extension of the Standard Model. In this scenario, there are three generations of right handed neutrinos are introduced which can generate tiny neutrino mass after the breaking of general  $U(1)$  gauge group. Studying a variety of low and high energy scattering and beam-dump experiments we will show the current parameter space of the general  $U(1)$  coupling as a function of the  $Z'$  mass for different  $U(1)$  charges.

### Apply for poster award

**Primary author:** DAS, Arindam

**Presenter:** DAS, Arindam

**Session Classification:** BSM, Global Interpretations

**Track Classification:** Physics and Detector: BSM, Global Interpretations