Contribution ID: **1348** Type: **Parallel session talk**

Multi-Messengers Neutrino Scattering on Ultra-Relativistic CνB

Saturday 20 July 2024 08:30 (15 minutes)

In this study, we analyze the existence of neutrino secret interactions (νSI), mediated by a new massive vector boson. We provide a recipe for setting limits on this BSM scenario by the detection of one or more neutrino events from HEν scattering on non-relativistic and ultra-relativistic CνB for the full mediator mass range. In particular, we present an analysis of the effect of the angular cutting parameter on coupling constant in the light mediator mass range. We illustrate the calculations with constraints on νSI coupling constant from SN1987A and Blazar TXS 0506+056.

Alternate track

I read the instructions above

Yes

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Session Classification: Neutrino Physics

Track Classification: 02. Neutrino Physics