ID de la contribución : **1030** Tipo : **Talk**

Confronting COHERENT and LHC to test neutrino nonstandard interactions

miércoles, 19 de noviembre de 2025 16:15 (15)

We will show the complementarity between COHERENT and LHC searches in testing neutrino nonstandard interactions (NSIs) through the completion of the effective field theory approach within a Z′ simplified model. Our results reveal that LHC bounds are strongly dependent on the Z′ mass, with relatively large masses excluding regions in the parameter space that are allowed by COHERENT data and its future expectations. We demonstrate that the combination of low- and high-energy experiments results in a viable approach to break NSI degeneracies within the context of simplified models.

Abstract

Primary author(s) : TERRONES ARAGÓN, Adrián (IFIC, CSIC-UV); MARTIN LOZANO, Victor (IFIC/UV); SÁNCHEZ GARCÍA, Gonzalo (UNAM)

Presenter(s) : TERRONES ARAGÓN, Adrián (IFIC, CSIC-UV)

Clasificación de la sesión : RENATA (Red Nacional Temática de Astropartículas)

Clasificación de temáticas : Red Temática de Astropartículas (RENATA)