



Contribution ID: 207

Type: **Parallel talk**

Sensitivity of Coherent Elastic Neutrino-Nucleus Scattering experiments to Non-Standard Interactions

Wednesday 30 August 2023 17:30 (15 minutes)

The process of Coherent Elastic Neutrino-Nucleus Scattering (CEvNS), first observed in 2017 by the COHERENT collaboration, has provided a powerful tool to study new physics scenarios within the neutrino sector. In this talk, we focus on the Non-Standard Interactions (NSI) formalism, and we present the current bounds on NSI flavor changing and non-universal parameters using CEvNS. Our analysis includes data from the two measurements provided by COHERENT using cesium iodide and liquid argon detectors. In addition, we present the sensitivities that can be expected from different detection technologies in future facilities such as the proposed European Spallation Source.

Submitted on behalf of a Collaboration?

No

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Session Classification: Neutrino physics and astrophysics

Track Classification: Neutrino physics and astrophysics