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Current and future sensitivities to Non-Standard Interactions using CEvNS

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The process of Coherent Elastic Neutrino-Nucleus Scattering (CEvNS) has shown to be sensitive to constrain new physics parametrized by Non-Standard Interactions (NSI). In this talk, we review the current bounds on NSI parameters when combining the recent results from the COHERENT collaboration using CsI and LAr detectors [1]. In addition, we present the expected sensitivities that can be reached with different detection technologies such as germanium, xenon, and silicon, when using the European Spallation Source proposal as a neutrino source [2]. We show that detectors could be combined to break some of the degeneracies that arise when considering two non-vanishing NSI parameters.

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