

Journées de Rencontre Jeunes Chercheurs 2023



ID de Contribution: 89

Type: Non spécifié

Search for Coherent Elastic Scattering of Solar Neutrinos in XENONnT

vendredi 27 octobre 2023 17:30 (30 minutes)

The XENON program aims to directly detect dark matter. As dark matter interacts very weakly, the sensitivity of dark matter experiments has greatly increased over the last two decades. XENONnT, the current XENON detector should be able to study solar neutrinos. This detector is designed to be sensitive to low-energy nuclear recoils which is the expected signal from some dark matter candidates. By chance, it also happens to be the signature expected from a little-known interaction of neutrinos: The Coherent Elastic Scattering with atomic nuclei. It could lead to the first detection of this interaction with neutrinos coming from an astrophysical source, the sun.

This talk will present the search for these events in XENONnT.

Auteur principal: M. PELLEGRINI, Quentin (LPNHE (SU))

Orateur: M. PELLEGRINI, Quentin (LPNHE (SU))

Classification de Session: Neutrinos

Classification de thématique: Neutrinos