

24th International Workshop on Next Generation Nucleon Decay & Neutrino Detectors (NNN25)

NNN25

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Nucleon Decay and Neutrino Detectors

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The measurement of low energy solar neutrinos with XENONnT experiment

Thursday, October 2, 2025 9:30 AM (25 minutes)

The XENONnT is an experiment designed to search for dark matter and other rare events. It has been conducted at Laboratori Nazionali del Gran Sasso (LNGS), Italy, using the time projection chamber with 8.5 tons of liquid xenon in total. Data taking started in July 2021 and stopped at the beginning of 2025, for the further upgrade of the detector.

Thanks to its ultra-low radioactive background, the XENONnT is also sensitive to low-energy solar neutrino interactions such as those induced by solar pp neutrinos in the keV energy range.

In this talk, I will present an overview of the experiment and report on the current status of neutrino searches.

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