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Recent results and plans for NEXT

Tuesday, 19 May 2026 15:00 (30 minutes)

Searches for neutrinoless double-beta decay (0νββ) represent one of the most promising avenues for uncovering new frontiers in particle physics, particularly in understanding the true nature of the neutrino. The Neutrino Experiment with a Xenon TPC (NEXT) investigates 0νββ using a high-pressure Xenon time projection chamber. This technology offers excellent energy resolution and good imaging capabilities.

The NEXT-100 detector, holding up to 100 kg of Xenon at 15 bar, is now taking data at the Canfranc Underground Laboratory. The main goal of NEXT-100 is to demonstrate the scalability of the technology. In this talk, I will review the latest results from this detector. I will also discuss the plans for the next-generation experiment.

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