

Status and Future for the NEXT Collaboration in Neutrinoless Double Beta Decay

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Neutrinoless double beta decay ($0\nu\beta\beta$) searches are key components of the physics program dedicated to understanding the nature and mass of the neutrino. The Neutrino Experiment with a high-pressure Xenon Time Projection Chamber (NEXT) collaboration uses high pressure gas xenon time projection chambers (TPCs) to demonstrate the performance and scalability of this technology as isotope masses increase with each experimental generation. I will first highlight some recent results from NEXT-White, a 5 kg-scale detector currently operating at the Laboratorio Subterráneo de Canfranc (Spain). I will then describe research and development related to NEXT-100, a 100 kg-scale detector which is the next generation of NEXT experiments and expected to take data starting in 2019.

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Collaboration name

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