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Type: **Parallel Talk**

The NEXT-100 time projection chamber and electroluminescent region

Saturday, 9 July 2022 12:00 (15 minutes)

NEXT-100 is a neutrinoless double beta decay experiment located at the Canfanc Underground Laboratory and is due to start commissioning in Summer 2022. The experiment employs a high-pressure gas time projection chamber consisting of 100 kg of enriched Xe-136 and is capable of achieving sub-percent energy resolution FWHM at the decay energy as well as background rejection through calorimetry and reconstruction of event topology. Excellent energy resolution is essential for the experiment to minimise the contamination of backgrounds in the signal region and can be realised through the high-gain, low-noise amplification of ionisation signals via electroluminescence (EL). This talk will review the physics goals of NEXT 100 and the status of construction of the TPC and sensor planes.

In-person participation

Yes

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