Contribution ID: **1056** Type: **Parallel Talk**

The LUX-ZEPLIN (LZ) experiment

Saturday, 9 July 2022 15:30 (20 minutes)

LUX-ZEPLIN (LZ) is a direct detection dark matter experiment located at the Sanford Underground Research Facility in Lead, South Dakota. The experiment consists of three nested detectors; a dual phase xenon TPC, an actively instrumented liquid xenon skin, and an outer detector neutron veto formed by 10 acrylic tanks of gadolinium-loaded liquid scintillator. The active region of the xenon TPC contains 7 tonnes of liquid xenon with a 5.6 tonne fiducial volume, allowing us to reach a WIMP-nucleon spin-independent cross section sensitivity of 1.4 x 10^-48 cm^2 for a 40 GeV/c^2 mass in 1000 live days. This talk will provide an overview of the LZ experiment and report on its status.

In-person participation

Yes

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