

The LUX-Zeplin Dark Matter Experiment

Friday, 31 July 2020 08:50 (25 minutes)

LUX-Zeplin (LZ) is a dark matter experiment under construction at the 4850-foot (4300 mwe) level of the Sanford Underground Research Facility in Lead, South Dakota. The experiment utilizes a two phase time projection chamber (TPC), containing seven active tonnes of liquefied xenon, to search for weakly interacting massive particles (WIMPs). Auxiliary veto detectors, including a liquid scintillator outer detector, improve rejection of unwanted background events in the central region of the detector. LZ has been designed to improve on current best sensitivities by a factor of 50 or more, and data taking is expected to begin this year. This talk will report on the current status of the LZ project and detector commissioning.

Secondary track (number)

Primary author: LIPPINCOTT, Hugh (UCSB)

Presenter: LIPPINCOTT, Hugh (UCSB)

Session Classification: Dark Matter Detection

Track Classification: 09. Dark Matter Detection