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An Overview of the LUX-ZEPLIN Experiment

Tuesday 25 July 2017 16:00 (15 minutes)

LUX-ZEPLIN (LZ) is a forthcoming experiment designed to directly detect WIMP dark matter. It aims to detect WIMP interactions with a liquid xenon time projection chamber containing 5.6 tonnes of xenon in the fiducial volume. LZ is projected to have a sensitivity to the spin-independent WIMP-nucleon cross section of 2.3x10ˆ-48 cmˆ2 for a 40 GeV/cˆ2 mass WIMP after 1000 days of livetime. An overview of LZ's design and progress towards fabrication and installation in the Sanford Underground Research Facility, where data-taking is scheduled to commence in 2021, will be presented.

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