

# First WIMP search results from LZ and outlook

*Wednesday 28 June 2023 14:40 (20 minutes)*

LUX-ZEPLIN (LZ) is located at Sanford Underground Research Facility (SURF) in Lead, South Dakota. It uses a dual-phase xenon time projection chamber to search for Weakly Interacting Massive Particles (WIMP) and other new physics beyond the Standard Model. LZ completed its first science run in 2022. With its low background and large mass (7 tonne) of liquid xenon, LZ has set the most stringent limits on WIMP-nucleon cross-sections for WIMP masses above 9 GeV. This talk will provide an overview of the LZ detector, its first WIMP search results and future plans.

**Author:** CHEN, Hao

**Presenter:** CHEN, Hao

**Session Classification:** Parallel

**Track Classification:** DM