Contribution ID: **164** Type: **Oral**

LZ experiment for dark matter search

Thursday 5 December 2019 16:30 (20 minutes)

The LUX-ZEPLIN (LZ) experiment is a direct dark matter search experiment that is under construction at the Sanford Underground Research Facility (SURF) in South Dakota (USA). It is based on dual-phase xenon technology and contains 7 tonnes of active liquid xenon in the time projection chamber (TPC). The active xenon volume is surrounded by the instrumented xenon skin, a liquid organic scintillator and water that will help in reducing backgrounds from environment and detector components. LZ is expected to start taking data in 2020 and achieve a sensitivity of about 1.6*10ˆ(-48) cmˆ2 at 40 GeV/cˆ2 WIMP mass after 1000 days of live time. This talk will review the status of the LZ project and expected sensitivity.

Author: Prof. KUDRYAVTSEV, Vitaly (University of Sheffield)

Presenter: LEONARD, Douglas

Session Classification: Parallel

Track Classification: Dark matter