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Status of the LUX-ZEPLIN (LZ) Experiment

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The LUX-ZEPLIN (LZ) experiment, a dual-phase xenon time projection chamber operating from the Sanford Underground Research Facility in Lead, South Dakota, USA, aims to detect Weakly Interacting Massive Particles (WIMP) dark matter candidate particles. It comprises a 10-tonne target mass (7-tonne active) viewed by vacuum ultraviolet photomultiplier tubes in both the liquid xenon's central and self-shielding regions, enclosed within an active gadolinium-loaded liquid scintillator veto and all submerged in an ultra-pure water tank veto system. This talk will provide an overview of the LZ detector, present results from LZ's first science run (exposure of 60 d \times 5.5 t.) and give an update on the current efforts being undertaken by the LZ Collaboration.

Submitted on behalf of a Collaboration?

Yes

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