IRN Terascale @ LPSC Grenoble



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## First results from the LUX-ZEPLIN (LZ) dark matter experiment.

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LUX-ZEPLIN (LZ) is a direct dark matter detection experiment currently operating at the Sanford Underground Research Facility (SURF) in Lead, South Dakota. It uses the world's largest dual-phase xenon time projection chamber, with 7 tonnes of active xenon, primarily to look for dark matter in the form of Weakly Interacting Massive Particles (WIMPs). LZ has released its first WIMP search results last year with an exposure of 60 live days using a fiducial mass of 5.5 tonnes. These results set new limits on spin-independent and spin-dependent WIMP-nucleon cross-sections for WIMP masses above 9  $\text{GeV/c}^2$ . This talk will provide an overview of the LZ project and the efforts that enabled LZ to achieve this world-leading WIMP search result.

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Classification de Session: Dark Universe

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