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Progress of the LZ Dark Matter Experiment

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LZ is the successor experiment to LUX, the current most sensitive dark matter detector operated at Sanford Lab in South Dakota. It is a 20x upgrade in target mass with a goal of 100x improvement in WIMP-nucleon cross-section sensitivity after three years of data. The design of the experiment is well advanced and critical technology demonstrations are underway. Here we present relevant elements of design and simulation outputs, outline the expected timetable through commissioning and make the case for how LZ can reach a sensitivity of $\sim 2e-48$ cm² at 50 GeV WIMP mass.

Oral or Poster Presentation

Oral

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