

Abstract Submitted  
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**The LUX Experiment - Detector performance, cryogenics, and controls** PATRICK PHELPS, Case Western Reserve University, THE LUX COLLABORATION — LUX, the Large Underground Xenon experiment, is a 350 kg dual-phase, liquid-gas, xenon TPC designed to directly detect Dark Matter interactions. LUX has completed its surface run program and underground deployment, expecting WIMP search results in 2013. To ensure quality science data, exacting cryogenic control systems are needed. LUX makes use of a series of thermosyphon and heat exchanger systems to ensure these design goals are met. This talk will review detector cryogenic performance, liquid xenon circulation, and detector monitoring and control systems.

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