

Abstract Submitted
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The XENON1T Cryogenic Commissioning Performance¹ YUN ZHANG, Columbia Univ, XENON COLLABORATION — The XENON1T experiment, located at the Laboratori Nazionali del Gran Sasso in Italy, aims at detecting dark matter weakly interacting massive particles using a dual-phase (liquid/gas) xenon time projection chamber filled with 3300kg of liquid xenon. The experiment is currently in the commissioning phase for science data taking in early 2016. The cryogenic system of the experiment maintains the liquid xenon target at a stable temperature and allows high speed continuous xenon purification through the use of efficient heat exchangers. The cryogenic commissioning tests performed so far have validated the efficiency and reliability of the cryogenic system for continuous long term operations. In this talk we will summarize the XENON1T cryogenic system and present results from cryogenic commissioning performance tests.

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