

Abstract Submitted
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The search for neutrinoless double beta decay with CUORE

LAURA KOGLER, UC Berkeley / LBNL, CUORE COLLABORATION — The Cryogenic Underground Observatory for Rare Events (CUORE) is an experiment to search for neutrinoless double beta decay (0 ν DBD) in Te-130, as well as other rare processes. Observation of 0 ν DBD would indicate that neutrinos are Majorana particles and would provide information about the absolute neutrino mass scale. The experiment will be composed of an array of 988 TeO₂ crystals arranged in 19 towers and operated as bolometers. I will discuss the status of the CUORE experiment, including recent R&D efforts, anticipated backgrounds and sensitivity, and the construction of CUORE-0, the first tower to be built in the CUORE design.

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