Abstract Submitted for the DNP17 Meeting of The American Physical Society

Neutrinoless double-beta decay search results from CUORE JEREMY CUSHMAN, Yale University, CUORE COLLABORATION — The Cryogenic Underground Observatory for Rare Events (CUORE) is a ton-scale cryogenic experiment designed to search for neutrinoless double-beta $(0\nu\beta\beta)$ decay of ¹³⁰Te. The experiment consists of 988 ultracold TeO₂ bolometric crystals arranged into 19 towers, which act as both the $0\nu\beta\beta$ decay sources and detectors. CUORE began taking data in the spring of 2017. We will discuss the early neutrinoless double-beta decay search results from CUORE, focusing on energy calibration and our understanding of the detector energy scale and resolution in CUORE.

> Jeremy Cushman Yale University

Date submitted: 30 Jun 2017

Electronic form version 1.4