

Abstract Submitted  
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**Calibration Techniques for the Project 8 Neutrino Mass Experiment** NOAH OBLATH, Massachusetts Institute of Technology, PROJECT 8 COLLABORATION — The goal of the Project 8 experiment is to measure the mass of the electron neutrino by studying the tritium beta-decay spectrum. To improve upon the current neutrino-mass limits we will use a new type of electron energy spectroscopy: detection the coherent cyclotron radiation emitted by the beta-decay electrons in a magnetic field. The electron energy can be determined from the emitted radiation by finding the relativistic shift of the cyclotron frequency. We are constructing an  $^{83m}\text{Kr}$  source, which emits conversion electrons at 32.1 and 9.4 keV. The source will be useful in characterizing proposed experimental designs, and be an absolute energy calibration for the final design.

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