

Abstract Submitted
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Project 8 Phase II: Improved beta decay electrons reconstruction MATHIEU GUIGUE, Pacific Northwest National Laboratory, PROJECT 8 COLLABORATION — The Project 8 collaboration aims to measure the absolute neutrino mass scale using a cyclotron radiation emission spectroscopy technique on the beta decays of tritium. The second phase of the project will measure a differential spectrum of tritium beta decays and extract the tritium endpoint value with an eV or sub-eV scale precision. Monoenergetic electrons emitted by gaseous $^{83\text{m}}\text{Kr}$ atoms can be used to determine the coefficient between the cyclotron frequency and the electron energy and to optimize the instrument configuration for the tritium measurement. We present the progress on the processing of the electron cyclotron radiation signal to reconstruct the beta decay spectrum of krypton and tritium.

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