

Abstract Submitted
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Project 8 neutrino mass experiment: Phase II tritium endpoint result and Phase III status¹ ELISE NOVITSKI, University of Washington, PROJECT 8 COLLABORATION COLLABORATION — Project 8 is a neutrino mass experiment that uses a new technique, Cyclotron Radiation Emission Spectroscopy (CRES), to make a differential measurement of the tritium β^- spectrum. Project 8 aims to use the advantages of CRES to surmount the systematic and statistical limitations of current-generation direct neutrino mass measurement methods, proceeding in a phased approach toward a goal of effective electron antineutrino mass sensitivity of ~ 40 meV/ c^2 using atomic tritium. This talk will report on the status of Project 8, from the final result of the Phase II endpoint measurement in molecular tritium to plans for the Phase III free-space CRES and atomic tritium demonstrations that will pave the way to an integrated Phase IV at the final sensitivity.

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