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First CRES Tritium Spectrum in Project 8 Phase II¹ YUHAO SUN,

Case Western Reserve University, PROJECT 8 COLLABORATION — Project 8 is a neutrino mass experiment with the tritium endpoint method, with the projected sensitivity on neutrino mass at 40meV. To achieve this sensitivity, the Project 8 Collaboration has developed a novel technique called Cyclotron Radiation Emission Spectroscopy (CRES). Taking a phased approach in four phases, we have measured the first tritium spectrum with CRES in Phase II of Project 8. In this talk I will give an overview of Phase II and the analysis, showing Phase II results have positioned us well going forward into future phases.

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