Abstract Submitted
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Project 8, a new approach to measuring neutrino mass[1] R. G. HAMISH ROBERTSON, Univ of Washington, PROJECT 8 COLLABORATION — The neutrino mass scale is presently unknown but the average mass must lie in the range 0.02 to 2 eV as determined from neutrino oscillations and laboratory measurements of tritium beta decay. Project 8 is a new technique designed to allow measurements in this range, possibly down to 0.04 eV. It makes use of cyclotron radiation emitted by electrons from tritium decay in a uniform magnetic field. The viability of the method on a small scale was demonstrated recently using the isotope ^{83m}Kr. Project 8 is being developed in a phased approach through systems of increasing size and complexity, with the final goal a large-scale atomic tritium experiment. We will describe the status of the program, and some of the challenges and advances.

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