

Abstract Submitted
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KATRIN: Toward an Improved Measurement of Neutrino Mass¹

DIANA PARNO, Carnegie Mellon University, KATRIN COLLABORATION — The Karlsruhe Tritium Neutrino experiment (KATRIN), presently in the late stages of commissioning, is designed to probe the absolute mass scale of the neutrino using the kinematics of tritium beta decay. KATRIN has a design mass sensitivity of 0.2 eV at 90% confidence, and will be able to search for sterile neutrinos at eV and keV scales. Progress in the last year includes the first transmission of electrons through the full 70-m beamline; characterization of subsystems and backgrounds through extensive commissioning and analysis; and first tests of multiple calibration sources. I will report on these results, and on prospects for the first, upcoming tritium run periods.

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