

Abstract Submitted
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The KATRIN Experiment: A precision tritium beta-decay measurement examining the mass of the neutrino KEITH RIELAGE, CENPA, University of Washington, KATRIN COLLABORATION — One of the most fundamental tasks facing nuclear and particle physics today is the determination of the absolute mass scale of neutrinos. The Karlsruhe Tritium Neutrino experiment (KATRIN) is a next generation tritium β decay experiment capable of performing a high precision direct measurement of the absolute mass of the electron neutrino. The projected sensitivity of the experiment is $m(\nu_e) < 0.2$ eV (90% C.L.). An overview of the experiment and its relative impact on cosmology, nuclear, and particle physics will be presented. KATRIN is scheduled to begin collecting data in 2008. Support for this project in the United States is provided by the DOE under contract DE-FG-97ER41020.

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