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**The KATRIN Neutrino Mass Experiment** JOSEPH FORMAGGIO,  
MIT, KATRIN COLLABORATION — Over the past decade, experiments studying neutrinos from atmospheric, solar, and reactor sources have shown conclusively that neutrinos change flavor and, as a consequence, have a small but finite mass. Yet, the scale of neutrino masses remains an open question that is of great importance for many areas of physics. The Karlsruhe Tritium Neutrino (KATRIN) experiment is the next generation tritium beta decay experiment with sub-eV sensitivity to make a direct, model independent measurement of the electron neutrino mass. The principle of the experiment is to look for a distortion at the endpoint of the electron energy spectrum from tritium beta decay. KATRIN will reach a final sensitivity of 200 meV at 90% C.L. on the absolute neutrino mass scale. This talk will provide an overview of the experiment as well as highlight some of the year's achievements in its construction.

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