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# The KATRIN neutrino mass experiment

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The KATRIN experiment aims at a direct and model independent determination of the neutrino mass with 200 meV sensitivity (90% C.L.) via a measurement of the endpoint region of the tritium beta-decay spectrum. The main components of the experiment are a windowless gaseous tritium source (WGTS), differential and cryogenic pumping sections and a tandem of a pre- and a main-spectrometer, applying the concept of magnetic adiabatic collimation with an electrostatic retardation potential to analyze the energy of beta decay electrons and to guide electrons passing the filter onto a segmented silicon PIN detector.

At present the experiment is being installed at the Karlsruhe Institute of Technology and many components are undergoing extensive testing. In the Tritium Laboratory Karlsruhe the demonstrator of the WGTS has been set up. The differential pumping section DPS2F has been installed and initial tests have been completed. A large range of test experiments and background studies have been performed at the pre-spectrometer. The main spectrometer with its air coil system and inner wire electrode is currently in the process of being closed up for bake-out of the system, after which the commissioning of this major component can take place. The 148 pixel silicon detector, required for spectrometer operation, is in place and currently undergoes a refinement of its
readout electronics.

The talk will present an overview of the experimental status and give an outlook on the commissioning activities.

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