Contribution ID: **1030** Type: **Talk**

KATRIN experiment: first neutrino mass result and future prospects

Thursday 30 July 2020 12:00 (15 minutes)

The KATRIN experiment aims to measure the effective electron antineutrino mass with a sensitivity of 0.2 eV/c^2 using a gaseous tritium source combined with the MAC-E filter technique. This direct neutrino mass measurement, based on the kinematics of the tritium beta-decay, provides a model-independent way of approaching the neutrino mass scale.

In this talk an overview of the KATRIN experiment, the first engineering and first science runs are presented. The first neutrino mass results from KATRIN are discussed. The talk closes with a report of the current status and an outlook on the future prospects of KATRIN.

Secondary track (number)

Primary author: LOKHOV, Alexey (University of Muenster)

Presenter: LOKHOV, Alexey (University of Muenster)

Session Classification: Neutrino Physics

Track Classification: 02. Neutrino Physics