

# New results on Neutrino Mass from the KATRIN Experiment

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The Karlsruhe Tritium Neutrino (KATRIN) experiment has pushed the measurement of absolute neutrino mass scale down to the sub-eV region for the first time. The  $\beta$  electrons from molecular tritium decay are measured with high precision, using the magnetic adiabatic collimation with an electrostatic filter (MAC-E filter). A blind analysis for the first two scientific campaigns of KATRIN sets the most stringent upper limit of  $m_\nu < 0.8\text{eV}/c^2$  at a 90% confidence level. This new result of a direct neutrino mass measurements provides a key input to cosmological models and the theory of particle physics.

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