

# Results, Status and Future of the KATRIN experiment and Outlook on Project 8, ECHo, and HOLMES

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Massive neutrinos impart an experimental signature in the endpoint region of beta-decay spectra. The Karlsruhe TRitium Neutrino (KATRIN) experiment uses a high-activity tritium source and a high-resolution spectrometer to place the most stringent upper limit on the effective neutrino mass of  $0.8 \text{ eV}/c^2$  (90% CL). Experimental improvements and further data taking will bring KATRIN towards its final design goal of a sensitivity of  $0.2 \text{ eV}/c^2$  (90% CL). Next generation experiments aim to use novel differential detectors and alternative beta-decay sources to push the sensitivity limit below the  $0.1 \text{ eV}/c^2$  threshold.

**Primary author:** GAVIN, Andrew (University of North Carolina)

**Presenter:** GAVIN, Andrew (University of North Carolina)

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