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Updates on the HOLMES experiment

The absolute neutrino mass is still a missing parameter in the modern landscape of particle physics. The HOLMES experiment aims to perform a direct measurement of the neutrino mass with a sensitivity of the order of 2 eV. The neutrino mass will be studied through the calorimetric measurement of the decay products of the weak process decay of ^{163}Ho . To achieve the target sensitivity, HOLMES will combine the use of 1000 low temperature TES microcalorimeters with the use of a sophisticated software, designed for the signal processing and data analysis. The detector and readout technology will be pushed to their limits in order to preserve the detectors performance and the high multiplexing factor at the same time. This contribution will provide an overview on the status of the major tasks that will bring HOLMES to life: from the isotope production and embedding to the detector production and readout.

Mini-abstract

Status of the HOLMES experiment, from isotope embedding to detector production and readout.

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