

## **Beta spectroscopy with superconducting calorimeters for the direct measurement of the neutrino mass**

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The neutrino mass scale is a relevant parameter of the theoretical framework beyond the Standard Model of particle physics. Cosmology constrains to 10meV the sensitivity required for future neutrino mass experiments, that means a huge effort of improving present instrumentation and technology.

In this work we show a calorimetric approach for the direct measurement of the neutrino mass by means of  $^{187}\text{Re}$  single  $\beta$  decay and  $^{163}\text{Ho}$  electron-capture decay. An high sensitivity is achievable thanks to the high responsivity of superconducting microcalorimeters and their low intrinsic noise.

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