

Status of Cuore experiment and last results from Cuoricino

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CUORE is a cryogenic-bolometer detector consisting of 988 TeO₂ crystals, 750 g each, operated at a temperature of 10 mK, currently under construction in Gran Sasso Underground Laboratory.

Its goal is to search for neutrinoless double beta decays with a sensitivity to the effective neutrino mass as low as a few tens of meV.

CUORICINO, its pilot experiment, has proven the feasibility of CUORE, setting moreover the current lower limit on the lifetime of ¹³⁰Te for neutrinoless double beta decay: we report on the up-to-date CUORICINO results and discuss the prospects for CUORE.

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