

Search for electronic recoil signals with XENONnT

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The XENONnT experiment searches for weakly interacting massive particles scattering off xenon nuclei with a dual-phase time projection chamber. With 5.9 tonnes of active mass and an unprecedented low level of background, the detector enables the searches of several rare-event physics channels. In particular XENONnT set stringent limits on other dark matter candidates interacting through electronic recoil (ER) scatter, such as solar axions and bosonic dark matter. The excellent energy reconstruction up to the MeV scale allows to conduct analysis also on other processes producing ER signals, like double-weak decays of Xe^{124} and Xe^{136} or precision measurements on nuclear transition such as the branching ratio of Pb^{212} and the spectral shape of Bi^{214} . In this talk I will give an overview of the results and the ongoing studies on electronic recoil signals with XENONnT.

Author: CAPELLI, Chiara (University of Zurich)

Presenter: CAPELLI, Chiara (University of Zurich)

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