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# Exploring the keV scale energy spectrum of CUORE

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The Cryogenic Underground Observatory for Rare Events (CUORE) is the first tonne-scale experiment using cryogenic calorimeters. The detector is located underground at the Laboratori Nazionali del Gran Sasso in Italy and consists of 988 TeO<sub>2</sub> crystals operated in a dilution refrigerator at a base temperature of about 10 mK. Thanks to the large exposure, sharp energy resolution, segmented structure and radio-pure environment, CUORE provided the most sensitive exclusion limit of the neutrinoless double beta decay of <sup>130</sup>Te.

We are working towards demonstrating the potential of CUORE as a multipurpose detector over a broad energy range. In this contribution, we present a comprehensive study on low-energy events, from a few to tens of keV, in the CUORE experiment. We profit from the very large amount of data collected so far (2 ton yr of exposure), to investigate the spectral features present at this energy scale to better understand the contribution from external radioactive sources and to study nuclear processes such as the <sup>123</sup>Te electron capture.

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