

# LNGS SEMINAR SERIES

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## **New results from the CRESST Experiment**

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The CRESST (Cryogenic Rare Event Search with Superconducting Thermometers) Experiment, located at LNGS, aims at the direct detection of WIMPs. In summer 2013 a new Dark Matter run has been started with a total target mass of ~5kg. With respect to previous measuring campaigns the intrinsic radiopurity of CaWO<sub>4</sub> crystals and the capability to reject recoil events from alpha surface contamination has been significantly improved.

We analysed the first ~80 live-days of data acquired by a single 250g CaWO<sub>4</sub> detector which combines an unprecedented background level with a low trigger threshold of ~600eV. In this talk, we present a new detector design and the results of a low-threshold analysis which set stringent limits for the spin-independent WIMP-nucleon cross section, in particular for low-mass WIMPs.

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