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Direct Dark Matter search with the CRESST-III experiment: Status and Prospects

Wednesday, 10 July 2024 14:00 (20 minutes)

CRESST-III (Cryogenic Rare Event Search with Superconducting Thermometers) is an experiment at the LNGS underground laboratories looking for direct detection of dark matter particles via their scattering off target nuclei in cryogenic detectors. Reaching energy thresholds of less than 100 eV, CRESST-III is among the leading experiments in probing sub-GeV DM masses. However, an unexplained rise of events at low energies (<200 eV) is currently limiting the sensitivity of the experiment in the low mass region. Therefore, for both the last measuring campaign, which ended in February 2024, and the new measuring campaign, which started in April 2024, the focus has been set on investigating the origin of this "low energy excess" (LEE). In this contribution we present an overview of CRESST-III, reporting on the latest results and future plans.

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