Contribution ID: **232** Type: **Oral presentation (young scientists)**

Probing Lithium targets in CRESST-III

Monday 18 July 2022 17:30 (10 minutes)

Cryogenic Rare Event Search with Superconducting Thermometers (CRESST) is an experiment designed to detect the direct dark matter (DM) interactions with scintillating crystals. The experiment is situated in a low-background underground facility in Laboratori Nazionali del Gran Sasso (LNGS). CRESST employs scintillating cryogenic calorimeters to measure the recoil energy of DM-nucleus interaction. The scintillation light information helps in discrimination of backgrounds from the potential DM signals. The experiment has achieved sensitivity for recoil energies down to a few tens of eV allowing it to be one of the leading experiments to probe sub-GeV/c 2 DM masses. In the latest run, CRESST operated lithium aluminate along with the traditional calcium
tungstate as lithium showed promising potentials to study spin-dependent dark matter interactions in the above-ground test measurements done. In this contribution, the latest data obtained with lithium targets and future upgrades will be discussed.

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Session Classification: Parallel 1A - Direct detection I