Contribution ID: **239** Type: **Talk**

Probing light Dark Matter with the CRESST-III experiment

Friday 31 March 2023 14:15 (15 minutes)

The CRESST experiment (Cryogenic Rare Event Search with Superconducting Thermometers) is searching for nuclear recoils induced by dark matter particles in cryogenic detectors employing different target materials: $CaWO_4$, Al_2O_3, $LiAlO_2$, and Si. With detection thresholds for nuclear recoils as low as 10 eV, CRESST is extremely suitable in the search for low mass dark matter particles. Most recent CRESST-III results on dark matter search are presented. Observations of the unexplained event population at very low energies ("low energy excess"), which is limiting the sensitivity of many experiments in the low mass region, are also reported. Plans for the CRESST future are presented.

Primary author: GORLA, Paolo

Presenter: GORLA, Paolo

Session Classification: SESSION 12: Direct Detection: status of sub-GeV DM detection (CHAIR: Maria Martinez - IUCA - Universidad de Zaragoza)

Track Classification: Non-directional direct dark matter detection