

ISAPP 2024: Particle Candidates for Dark Matter



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Introduction to the CRESST experiment

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CRESST (Cryogenic Rare Event Search with Superconducting Thermometers) is a dark matter search that uses (mainly) scintillating crystals equipped with Transition Edge Sensors (TESs) operated as cryogenics calorimeters (temperature O(mK)). The experiment is located at the underground laboratory of Gran Sasso (LNGS) in Italy, and its objective is to directly search for dark matter in the sub-GeV mass range. The extremely low threshold and high energy resolution achieved confirm CRESST as one of the world's leading sub-GeV dark matter experiments. The detectors are produced and tested at Max-Planck-Institut-für-Physik in Munich, Germany. In this talk, an overview of the experiment is given, mainly focusing on the Max Planck facilities and the detectors' production. In addition, the successful installation of the new detectors at LNGS is presented.

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Session Classification: Flash Talks by Students