

ISAPP 2024: Particle Candidates for Dark Matter



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R&D of dark matter cryogenic detectors: study of impact of an aluminium layer as a shield against magnetic fields

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The CRESST experiment uses Transition Edge Sensors as super-sensitive cryogenic thermometers to measure a temperature variation in a target crystal as a result of the interaction of dark matter particles within it. The stability and the performance of these superconducting sensors is strongly affected by changes in the external magnetic fields. In this talk, I will talk about a first attempt to shield one sensor by adding an aluminium layer to it. I will also describe the results of a comparison between the performance of the shielded sensor and an unshielded one.

Presenter: ZANIRATO, Marco (Max Planck Institut für Physik)

Session Classification: Flash Talks by Students