



Contribution ID: 72

Type: **Poster**

BULLKID-DM: searching for light WIMP with monolithic arrays of detectors

Tuesday 18 February 2025 16:10 (20 minutes)

BULLKID-DM is a new experiment to search for hypothetical WIMP-like Dark-Matter particles with mass around 1 GeV and cross-section with nucleons smaller than 10^{-41} cm^2 .

The target will amount to 600 g subdivided in 2500 silicon dice sensed by phonon-mediated kinetic inductance detectors. With respect to other solid-state experiments in the field the aim is to control the backgrounds by creating a fully active structure and by applying fiducialization techniques. The experiment is intended to be placed at the Gran Sasso laboratories. After the encouraging results of a 20 g prototype, here we present the first results from a demonstrator array of 60 g and 180 silicon dice, the simulations of the experiment and the projected Dark Matter sensitivity.

Primary experiment

BULLKID-DM

Author: DELICATO, Daniele (INFN roma1 / CNRS Institut Néel)

Presenter: DELICATO, Daniele (INFN roma1 / CNRS Institut Néel)

Session Classification: Coffee & Posters A

Track Classification: Dark matter and other low-background experiments