Contribution ID: **924** Type: **Parallel Talk**

BULLKID - Bulky and low-threshold kinetic inductance detectors

Saturday, 9 July 2022 09:15 (15 minutes)

BULLKID is an R&D project on a new cryogenic particle detector to search for low energy processes such as low-mass dark matter and neutrino coherent scattering off nuclei. The detector unit we are building consists in an array of 60 silicon absorbers sensed by phonon-mediated, microwave-multiplexed Kinetic Inductance Detectors (KIDs), with energy resolution on nuclear recoils around 100 eV and total mass of 20 g. The single detector unit is engineered to ensure a straightforward scalability to a future kg-scale experiment. In this talk we will describe this innovative detector concept and the recent encouraging achievements of the project following the operation of the first prototypes.

In-person participation

Yes

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Session Classification: Detectors for Future Facilities, R&D, novel techniques

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