



Contribution ID: 191

Type: **Oral**

## **BULLKID - Bulky and low-threshold kinetic inductance detectors**

*Thursday, 26 May 2022 10:30 (15 minutes)*

BULLKID (Bulky and low-threshold kinetic inductance detectors) is an R&D project on an innovative cryogenic particle detector to search for low-energy nuclear recoils induced by neutrino coherent scattering or Dark Matter interactions. The detector unit consists of an array of 60 silicon absorbers of 0.3 g each sensed by phonon-mediated, microwave-multiplexed Kinetic Inductance Detectors. The arrays built up to now feature a total active mass of 20 g and the technology is engineered to ensure an easy scalability to a future kg-scale experiment. In this talk we will describe BULLKID and we will present the recent and encouraging results obtained from the operation of the first prototypes.

### **Collaboration**

**Primary author:** VIGNATI, Marco (Istituto Nazionale di Fisica Nucleare)

**Presenter:** VIGNATI, Marco (Istituto Nazionale di Fisica Nucleare)

**Session Classification:** Cryogenic, Superconductive and Quantum Devices