Contribution ID: **194** Type: **Oral**

# First result on the neutrinoless double beta decay of Se-82 with CUPID-0

*Tuesday, 5 June 2018 17:30 (20 minutes)*

CUPID-0 is the first large array of enriched scintillating ZnSe cryogenic calorimeters implementing active particle identification. The detector consists of an array of 24 ZnSe crystals enriched in $^{82}$Se and two natural ZnSe crystals for a total mass of 10.5 kg installed in a dilution refrigerator hosted at the Laboratori Nazionali del Gran Sasso.
The heat-light readout exploited in CUPID-0 provides a unique tool for $\alpha$-particle discrimination and allows to suppress the background in the region of interest to an unprecedented level for a bolometric experiment. We will report the first results of the search for neutrinoless double beta decay ($0\nu\beta\beta$) in $^{82}$Se and a preliminary background reconstruction.

## Subject

Neutrinos

## Abstract Title

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**Session Classification:** Parallel Session Neutrinos