

Contribution ID: 18

Type: Poster

## Construction and calibration of the DUCK (Detector of Unusual casKades) system modules

In the High-Energy Physics field there is an active search of the origin and the nature of the Ultra-high energy cosmic rays. These are messengers that carry information from far into the Universe, and they might also hint on direction towards new physics. This talk presents the overall hardware and software design, and the construction and calibration of DUCK (Detector system of Unusual Cosmic-ray casKades) main modules. DUCK is a new cosmic-rays detector that is being constructed at the Clayton State University campus that has resolution at the ns-level. The main scientific direction for the DUCK project is to contribute to the approach of cosmic ray event analysis using the full waveform and detector response width. Additionally, it aims to provide an independent verification of the detection of the 'unusual'cosmic ray events that were reported by the Horizon-T detector system that may be indicating direction towards the novel physics possibilities.

## Secondary track

Authors: COLLABORATION, DUCK; Prof. BEZNOSKO, Dmitriy (Clayton State University)Presenter: Prof. BEZNOSKO, Dmitriy (Clayton State University)Session Classification: T11

Track Classification: T11 - Detectors