

# Cosmic Watch for Education and Outreach in Africa and Beyond

*Friday 29 September 2023 14:36 (22 minutes)*

Several years ago, Spencer Axani of the Massachusetts Institute of Technology designed and tested a very small, inexpensive cosmic ray detector that he named the Cosmic Watch. He also provided plans and resources to the public for anyone to build and use one. A little over a year ago, inspired by the TanQ project in Japan, the U.S. QuarkNet program built 48 of these detectors, which have been used and tested by QuarkNet members in a variety of scenarios. We will discuss what was learned about the Cosmic Watch and then shift that discussion to how it may be used in physics outreach and education in Africa. The goal is for students and teachers to collect and analyze cosmic ray muon data in order to build enthusiasm for and deeper understanding of fundamental physics.

## Abstract Category

Physics Education

**Primary authors:** KALLENBERG, Daniel (Adams High School, South Bend, Indiana, USA); CHORNY, Jeffrey (Lakeshore High School, Stevensville, Michigan, USA); WEGNER, Jeremy (Winamac Community High School, Winamac, Indiana USA); CECIRE, Kenneth William (University of Notre Dame (US))

**Presenter:** CECIRE, Kenneth William (University of Notre Dame (US))

**Session Classification:** Special sessions on small detector labs & internet of things

**Track Classification:** Physics Education and Outreach