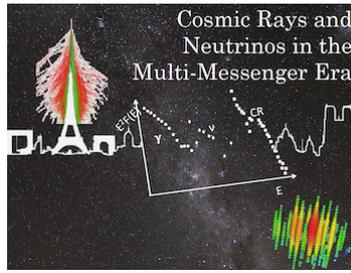


## Cosmic Rays and Neutrinos in the Multi-Messenger Era



ID de Contribution: 97

Type: **Poster**

### **Recent results from the Askaryan Radio Array (ARA) experiment**

Neutrinos are unique messengers to the distant, high energy universe. As neutral, weakly interacting particles, neutrinos arrive from cosmic distances ( $>100$  Mpc) unattenuated and undeflected. Because of their low fluxes and low cross sections, neutrinos of ultra-high energies (UHE,  $>10$  PeV) remain undetected. The Askaryan Radio Array (ARA) is an experiment deployed at the South Pole searching for these UHE neutrinos. ARA searches for neutrinos by looking for the burst of radio waves emitted by relativistic particle showers induced by neutrino interactions in the ice. In this poster, we present the latest results in the search for a diffuse flux of neutrinos. This search leverages four years of data from two detector stations. The work represents the best limit set by an in-ice radio neutrino experiment above  $\sim 100$  PeV.

#### **Related session**

Searching for neutrinos

**Auteurs principaux:** TORRES, Jorge; CLARK, Brian (Michigan State University); Dr LU, Ming-Yuan (University of Wisconsin)

**Orateur:** TORRES, Jorge