

## Recent results from the ARIANNA neutrino experiment

*Thursday 9 June 2016 14:30 (30 minutes)*

The ARIANNA experiment is currently taking data in its pilot-phase on the Ross ice-shelf. Nine fully autonomous stations measure radio signals in the frequency range from 100 MHz to 1 GHz. The seven station HRA was completed in December 2014, and augmented by two special purpose stations with unique configurations. In its full extent ARIANNA is targeted at detecting interactions of cosmogenic neutrinos in the ice-shelf. Downward-pointing antennas installed at the surface will record the radio emission created by neutrino-induced showers in the ice and exploit the fact that the ice-water surface acts as a mirror for radio emission. ARIANNA stations are independent, low-powered, easy to install and equipped with real-time communication via satellite modems.

We will report on detailed measurements of the radio quiet environment at the ARIANNA site, as well air shower detections that have been made over the past years. Furthermore, we will discuss the search for neutrino emissions, future plans and sensitivities of the experiment.

**Author:** Dr NELLES, Anna (University of California Irvine)

**Presenter:** Dr NELLES, Anna (University of California Irvine)

**Session Classification:** Presentations