



Contribution ID: 455

Type: **Poster**

## **Sensitivity and event reconstruction with the Radio Neutrino Observatory Greenland (RNO-G)**

Deployment of the Radio Neutrino Observatory Greenland (RNO-G) is planned to start in 2020 at Summit Station, Greenland. In the next few years, thirty-five stations will be deployed and RNO-G will also act as a pathfinder for IceCube-Gen2. The aim is to detect astrophysical neutrinos at energies beyond the ones thus far observed. The deep positioned trigger (100 m depth) maximizes the effective detection volume of around  $1 \text{ km}^3$  per station at an energy of  $1 \text{ EeV}$ . The spacing and positioning of the antennas and strings are optimized for neutrino energy and arrival direction reconstruction with a single station. A surface component will act as a cosmic ray veto, to reduce background. This poster will give an overview of the current state of simulations and reconstruction methods for RNO-G and will detail its expected sensitivity.

### **Mini-abstract**

Sensitivity and event reconstruction with the Radio Neutrino Observatory Greenland (RNO-G)

### **Experiment/Collaboration**

Radio Neutrino Observatory Greenland

**Primary authors:** WELLING, Christoph (DESY); PLAISIER, Ilse (DESY)

**Presenters:** WELLING, Christoph (DESY); PLAISIER, Ilse (DESY)

**Session Classification:** Poster session 3