

## XX International Workshop on Neutrino Telescopes



ID contributo: 11

Tipo: **Contributed Parallel Talk**

### **SNO+: Current results and $0\nu\beta\beta$ prospects**

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SNO+ is a large multipurpose experiment located in the SNOLAB underground laboratory in Sudbury, Canada. With an extensive physics programme focused on many neutrino physics topics and nucleon decay searches, the ultimate goal of SNO+ is the search for the neutrinoless double beta decay of  $^{130}\text{Te}$ . After a commissioning phase with water as the target medium, whose data allowed measurements of solar neutrinos and the detection of reactor antineutrinos, SNO+ is now filled with 780 tonnes of liquid scintillator. The higher light yield of the scintillator enhances the physics capabilities of the experiment, and the physics program including reactor, geo and solar neutrinos is underway. The data is also being used to quantify backgrounds and understand the detector response in preparation for the neutrinoless double beta decay search, when the scintillator is loaded with tellurium at 0.5% by weight. This talk will highlight the recent results of the SNO+ experiment and discuss the prospects for the neutrinoless double beta decay searches.

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**Classifica Sessioni:** Neutrino Properties

**Classificazione della track:** Neutrino Properties