Canadian Association of Physicists
Association canadienne des physiciens et physiciennes

Contribution ID: **3620** Type: **Oral Competition (Graduate Student) / Compétition orale (Étudiant(e) du 2e ou 3e cycle)**

(G*) Status and Prospects of the SNO+ Experiment

Monday 19 June 2023 15:00 (15 minutes)

The SNO+ Experiment is a versatile multipurpose neutrino detector situated at SNOLAB, with the primary goal of searching for neutrinoless double beta decay. After a successful operating phase as a water Cherenkov detector, the SNO+ target medium was switched to a liquid scintillator to increase the light yield of the detector, thereby enabling a much richer physics programme. In addition to ongoing measurements of reactor antineutrinos, solar neutrinos, geoneutrinos, supernova neutrinos, and other exotic phenomena, the SNO+ experiment is now preparing for a future phase capable of neutrinoless double beta decay. After presenting an overview of the detector and recent preliminary results, the upcoming physics capabilities of the experiment will be discussed.

Keyword-1

Deep Underground Physics

Keyword-2

Neutrino Physics

Keyword-3

Astroparticle Physics

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Session Classification: (PPD) M2-10 DM / Neutrino 0 | DM / Neutrino 0 (PPD)

Track Classification: Symposia Day (Tues. June 20) / Journée de symposiums (mardi, le 20 juin): Symposia Day (PPD - PPD) - Discovering New Paths to Discovery: New Technologies and Methods to Uncover BSM Physics | Découvrir de nouvelles voies vers la découverte : Nouvelles technologies et méthodes pour découvrir la physique au-delà du modèle standard