



Canadian Association
of Physicists

Association canadienne
des physiciens et physiciennes

Contribution ID: 3117

Type: Oral not-in-competition (Graduate Student) / Orale non-compétitive (Étudiant(e) du 2e ou 3e cycle)

Calibrating eV-Sensitive Detectors at the Université de Montréal Tandem Accelerator

Wednesday 8 June 2022 16:00 (15 minutes)

Understanding the sensitivity of ultrasensitive detectors used in dark matter research requires equally sensitive calibration facilities. The 4.8 keV neutron beam at the Université de Montréal tandem accelerator facility is being upgraded with boron-loaded neutron detectors to provide neutron scatter recoils at energies below 100 eV. This capability is required to characterize the cryogenic silicon and germanium detectors of the SuperCDMS experiment. We will present results of an initial run of a SuperCDMS (Super Cryogenic Dark Matter Search) silicon HVeV detector at the existing facility to evaluate the facility's neutron signal and background rate following the planned upgrade.

Authors: MICHAUD, Emile; DE BRIENNE, Francois (Université De Montreal)

Presenters: MICHAUD, Emile; DE BRIENNE, Francois (Université De Montreal)

Session Classification: W3-6 ML in HEP and Rare Background Searches (PPD) | Apprentissage automatique en PHE et recherche d'interférences rares (PPD)

Track Classification: Technical Sessions / Sessions techniques: Particle Physics / Physique des particules (PPD)