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Contribution ID: **2601** Type: **Oral not-in-competition (Graduate Student) / Orale non-compétitive (Étudiant(e) du 2e ou 3e cycle)**

Improving the sensitivity of the neutron electric dipole moment experiment at TRIUMF

Thursday, 6 June 2019 13:45 (15 minutes)

The TRIUMF Ultra-Cold Advanced Neutron (TUCAN) collaboration is currently developing a new ultra-cold neutron (UCN) facility with the main scientific objective to measure the neutron electric dipole moment (nEDM). To conduct the nEDM search experiment, the neutrons must be transported to a precession chamber, be stored, and deposited into the detectors efficiently. This is especially important, since neutron EDM experiments are statistically limited.
The presentation will describe the methods for optimising various components of the UCN source, UCN transport hardware, and the nEDM apparatus to minimise the total experimental run time.

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