



Canadian Association
of Physicists

Association canadienne
des physiciens et physiciennes

Contribution ID: 3439

Type: **Invited Speaker / Conférencier(ère) invité(e)**

(I) The MOLLER experiment

Tuesday 7 June 2022 15:15 (25 minutes)

The upcoming MOLLER (Measurement Of a Lepton Lepton Electroweak Reaction) experiment at Jefferson Lab will provide a precision measurement of the parity-violating asymmetry in polarized electron-electron scattering. This should yield the most precise measurement of the weak mixing angle at low energy, and would be sensitive to new physics contributions in the interference between the neutral current and electromagnetic amplitudes as small as 0.1% of the Fermi constant. This would provide discovery reach for new physics in flavor and CP-conserving processes at the multi-TeV scale.

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Session Classification: T4-3 New Directions in Accelerator-Based Experiments: Future Experiments
- From Collider to neutrinos (PPD) | Nouvelles voies fondées sur des accélérateurs: expériences futures
- de collisionneur à neutrinos (PPD)

Track Classification: Symposia Day (Tues. June 7) / Journée de symposiums (mardi, le 7 juin):
Symposia Day (PPD) - New Directions in Accelerator-Based Experiments