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## The MoEDAL-MAPP Facility - Expanding the LHC's Discovery Horizon

*Tuesday 10 June 2025 10:30 (30 minutes)*

The Canadian led international MoEDAL-MAPP (MMF) facility at the LHC consists of four detectors: MoEDAL (approved in 2010), MAPP-1 (approved in 2021), the MAPP-1 Outrigger (submitted to the LHCC for approval), and, MAPP-2 (the NoI to be submitted in 2025). These detectors are designed to detect: Highly Ionizing Particle (HIP), Feebly Ionizing Particle (FIP), and Long Lived Particle (LLP) avatars of new physics with unprecedented sensitivity. We shall describe the physics production of the MoEDAL detector that has operated at LHC's Run-1, Run-2 and Run-3 and the physics program of MAPP-1+Outrigger and MAPP-2.

### Keyword-1

MoEDAL detector, MAPP-1, LHC

### Keyword-2

New physics, dark matter

### Keyword-3

Supersymmetry

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