

# The MoEDAL-MAPP New Physics Search Facility at the LHC - Transcending the Standard Model

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The MoEDAL experiment at IP8 on the LHC ring is the 7th LHC experiment and the 1st dedicated to the search for BSM physics. It took data at LHC's Run-1&2. The MoEDAL detector is an unconventional and mostly passive detector dedicated to the search for Highly Ionizing Particle (HIP) avatars of new physics. An upgraded MoEDAL detector, installed for Run-3, is currently taking data allowing us to also search for massive singly & multiply charged Long-Lived Particles (LLPs).

MoEDAL-MAPP is currently installing the MoEDAL Apparatus for Penetrating Particles (MAPP-1) in the UA83 tunnel ~100m from IP8 as part of MoEDAL-MAPP's New Physics Search Facility (MNPSF) at the LHC. MAPP-1 extends MoEDAL's reach to include sensitivity to Feebly Ionizing Particles (FIPs) such as milli-charged particles, with sensitivity to LLPs. The MoEDAL-MAPP Collaboration is planning to add the MAPP-2 detector to the MNPSF for data taking at the High Luminosity to greatly enhance our sensitivity to neutral LLPs.

## Alternate track

### I read the instructions above

Yes

**Primary authors:** UPRETI, Aditya (The University of Alabama); PINFOLD, James (University of Alberta (CA))

**Presenter:** UPRETI, Aditya (The University of Alabama)

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