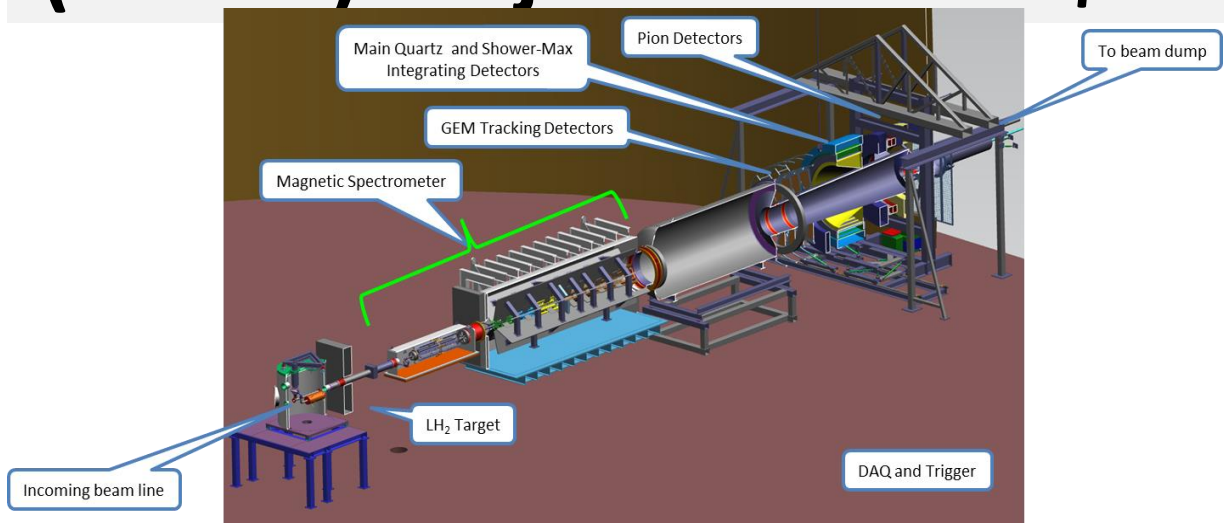


Measurement of Lepton-Lepton Electroweak Reactions (Moller) Project

TPC: \$48.66M



CURRENT CHALLENGES/ISSUES/RISKS

Ensuring the availability of key resources to successfully complete the project and manage ongoing water intrusion problems in Hall A (and other halls) that must be mitigated to provide adequate stewardship of DOE and its investments.

PLANNED CD (FY Date)	
	CD-4
	4 th QFY28

PROGRAM, MISSION, SCOPE, ACQUISITION STRATEGY

PROGRAM: NP **LOCATION:** TJNAF

MISSION NEED: The capability gap to be addressed is the ability to measure parity-violating (left/right) asymmetries in Moller scattering at a level of precision sufficient to test for new physics beyond the Standard Model up to the multi-TeV energy scale currently being explored at the Large Hadron Collider (LHC).

PROJECT SCOPE: The MOLLER Major Item of Equipment (MIE) scope is to design, construct, and install the experimental equipment in Jefferson Lab’s Hall A, and to make modifications to existing Hall A systems. It has the following principal scope elements: liquid hydrogen target, spectrometer, integrating detectors, tracking detectors, Hall A infrastructure and integration, data acquisition and trigger.

ACQUISITION STRATEGY: The strategy mixes the purchase of components from vendors, executing work directly at TJNAF, and placing contracts with university groups to fabricate some of the detector subsystems.

MOLLER’s TOP TAKE-AWAYS

- Received CD-3a approval in 2nd QFY23 for \$9.14M in long lead procurements to be completed in 4th QFY25.
- All funding to execute the TPC of \$48.66M has been received.
- Will be installed in Hall A for multi-year experimental program.