

Potential Fermilab Muon Campus & Storage Ring Experiments

Monday, 24 May 2021 - Thursday, 27 May 2021

Scientific Programme

The Muon $g-2$ and Mu2e experiments are currently collecting data and being constructed at the Muon Campus respectively. The Fermilab Muon Campus provides world class experiment and accelerator infrastructure that can support next generation intensity frontier research. The Proton Improvement Plan-II (PIP-II) upgrades to the Fermilab accelerator complex will allow for megawatt level proton beams that can enable particle physics experiments that produce very large data sets. The existing infrastructure and PIP-II upgrades represent a substantial investment, and it is worthwhile to explore ideas for developing new experiments at the Muon Campus that have a small incremental cost on top of the existing infrastructure investments. It will benefit the particle physics and accelerator communities if existing Fermilab infrastructure is used to support a diversified short-, medium-, and long-term intensity frontier program that studies Standard Model (SM) physics and searches for physics beyond the SM. A workshop on potential storage ring and Muon Campus experiments that considers both muon and non-muon based measurements would help support the Snowmass exercise.

The workshop is organized as follows:

- Muon $g-2$ Negative Muon & Dedicated EDM Measurements Session
- Storage Ring Experiments Session
- Muon Campus Experiments Session
- Submitted Abstracts - to be determined