



Contribution ID: 67

Type: **not specified**

## Searching for a muon EDM and measuring muon $g-2$ at Fermilab

The Muon  $g-2$  Experiment at Fermilab measures the anomalous part of the muon magnetic dipole moment,  $a_{\mu}$ , and searches for a non-zero muon electric dipole moment (EDM). Both are excellent probes of new physics; precise measurements of  $a_{\mu}$  can help disentangle current tensions in the Standard Model (SM) prediction, and the predicted muon EDM is beyond current experimental reach. An EDM observation would therefore be a direct sign of new physics, offering a new source of CP violation, otherwise tighter limits can be placed on BSM scenarios. In this talk, I will update on the status of both efforts in the experiment with a focus on the straw tracker-based EDM search.

**Primary author:** VASILKOVA, Dominika (University of Liverpool)

**Presenter:** VASILKOVA, Dominika (University of Liverpool)