Contribution ID: **132** Type: **Talk**

Status of the Fermilab Muon g-2 Experiment

Monday 25 August 2014 17:45 (25 minutes)

The anomalous magnetic dipole moment of the muon can be both measured and computed to very high precision, making it a powerful probe to test the standard model and search for new physics such as SUSY. The previous measurement by the Brookhaven E821 experiment found a 3.6 standard deviation discrepancy from the predicted value. The new g-2 experiment at Fermilab will improve the precision by a factor of four through a factor of twenty increase in statistics and a reduced systematic uncertainty with an upgraded apparatus. The experiment will also carry out an improved search for a muon electric dipole moment. Construction at Fermilab is well underway.

Primary authors: Prof. DAVID, Kawall (University of Massachusetts); Prof. GIBBONS, Lawrence (Cornell University)

Presenter: Prof. DAVID, Kawall (University of Massachusetts)

Session Classification: Flavour physics - CKM and beyond

Track Classification: 8) Flavour physics - CKM and beyond