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## Status of the Fermilab Muon $g-2$ experiment

*Wednesday, August 5, 2015 3:00 PM (15 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 discrepancy from the predicted value with over a 3 standard deviation significance. 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.

### Oral or Poster Presentation

Oral

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