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The Muon g-2 Experiment at Fermilab

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The Muon g-2 Experiment at Fermilab aims to measure the anomalous magnetic moment of the muon to a precision of 140 parts per billion. This four-fold improvement over the previous Brookhaven E821 measurement provides significant insight into the tantalizing 3.5 standard deviation discrepancy between measurement and the Standard Model prediction
The measurement of the anomalous magnetic moment at the design precision requires measurement of both the spin precession rate and the magnetic field strength, each with a 70 ppb systematic uncertainty, with projected equal statistical and systematic uncertainties of 100 ppb.
This talk will provide an overview and status of the experiment along with the measurement methodology.

Summary

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