



# FIRST RESULTS FROM THE FERMILAB MUON G-2 EXPERIMENT

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**925-9114-6494**

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The Muon g-2 experiment searches for signs of new particles and forces by precisely measuring the magnetic moment of the muon and comparing it to similarly exact theoretical predictions. A previous experiment performed two decades ago at Brookhaven National Laboratory revealed an intriguing hint of such new physics. The first result of the Fermilab Muon g-2 experiment agrees with the previous experiment and increases the tension between the experiment and the Standard Model to 4.2 sigma. This result will be presented along with description of the experimental methods and theoretical implications. Future prospects of improving the experimental and theoretical uncertainties will be discussed.

