

## New measurement of the muon anomalous magnetic moment by the Muon g-2 experiment at Fermilab

*Thursday, 19 October 2023 09:30 (30 minutes)*

The goal of the Muon g-2 experiment at Fermilab is to measure the muon anomalous magnetic moment to unprecedented precision of 140 parts per billion. In August 2023, the collaboration published the second measurement based on the data acquired during the second (Run-2) and third (Run-3) year of running. The new result is the most precise measurement of the muon magnetic anomaly and it confirms both the previous measurement based on the Run-1 data, published in 2021 and the final result from the precedent Muon g-2 experiment at BNL, published in 2001. This talk will present the new measurement detailing the experimental and analysis improvements with respect to the first result and the plans for the next years.

### Parallel Session

Invited Plenary Talk

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**Session Classification:** Plenary talk