

Vulcano Workshop 2018 - Frontier Objects in Astrophysics and Particle Physics



Contribution ID: 6

Type: **not specified**

The g-2 experiment at Fermilab: Run 1 Status and Perspectives

The Muon g-2 experiment at Fermilab will measure the anomalous magnetic moment of the muon to a precision of 140 parts per billion, which is a factor of four improvement over the previous E821 measurement at Brookhaven. The experiment will also extend the search for the muon electric dipole moment (EDM) by approximately two orders of magnitude. Both of these measurements are made by combining a precise measurement of the 1.45T storage ring magnetic field with an analysis of the modulation of the decay rate of the higher-energy positrons from the (anti-)muon decays recorded by 24 calorimeters and 3 straw tracking detectors. The current status of the experiment as well as results from the first months of data taking will be presented.

Primary author: INCAGLI, Marco (PI)

Presenter: INCAGLI, Marco (PI)