



Contribution ID: 140

Type: Talk

## Latest Results and Outlook of the Muon $g-2$ Measurement

Wednesday 4 September 2024 12:15 (25 minutes)

Fermilab Muon  $g-2$  Collaboration presented another measurement of the anomalous magnetic moment of the positive muon ( $a_\mu$ ) from the analysis of the data collected in 2019 and 2020. The new result agrees with the first published result from Fermilab while it also shows reduced uncertainty thanks to improved systematics and four times more statistics. Combined data brings the world average of the anomalous magnetic moment of the muon to  $a_\mu(\text{Exp})=116592059(22)\times 10^{-11}$  (0.19 ppm). This talk will cover the highlights of the measurement while also giving an outlook for the final data from Fermilab and the latest Standard Model calculations.

### Internet talk

No

### Is this an abstract from experimental collaboration?

Yes

### Name of experiment and experimental site

Muon  $g-2$  Experiment at Fermilab

### Is the speaker for that presentation defined?

Yes

### Details

Esra Barlas-Yucel, Postdoctoral Research Associate, University of Illinois at Urbana-Champaign, United States

**Primary author:** BARLAS YUCEL, Esra

**Presenter:** BARLAS YUCEL, Esra

**Session Classification:** High Energy Particle Physics

**Track Classification:** Main topics: High Energy Particle Physics